

The Library
of the
University of North Carolina



Collection of North Caroliniana

This book was presented

by
The Department

C550

N87r

1950/52

UNIVERSITY OF N.C. AT CHAPEL HILL



00033966165

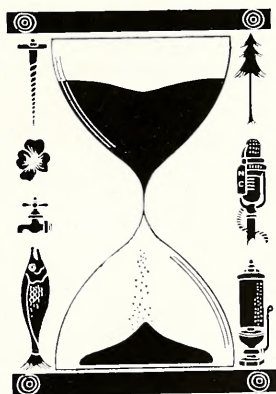
**This book must not
be taken from the
Library building.**

DEC 16 1959



Digitized by the Internet Archive
in 2011 with funding from
Ensuring Democracy through Digital Access (NC-LSTA)

FOURTEENTH BIENNIAL REPORT
of the
NORTH CAROLINA
DEPARTMENT OF CONSERVATION
AND DEVELOPMENT



Biennium July 1, 1950-June 30, 1952

C550
71872
1950/52

LETTER OF TRANSMITTAL

Raleigh, N. C.
November 1, 1952

TO HIS EXCELLENCY
W. KERR SCOTT, *Governor*,
Raleigh, North Carolina

Sir:

In compliance with Section 11, Chapter 122, Public Laws of 1925, I have the honor of transmitting herewith the report of the Department of Conservation and Development for the biennium ending June 30, 1952.

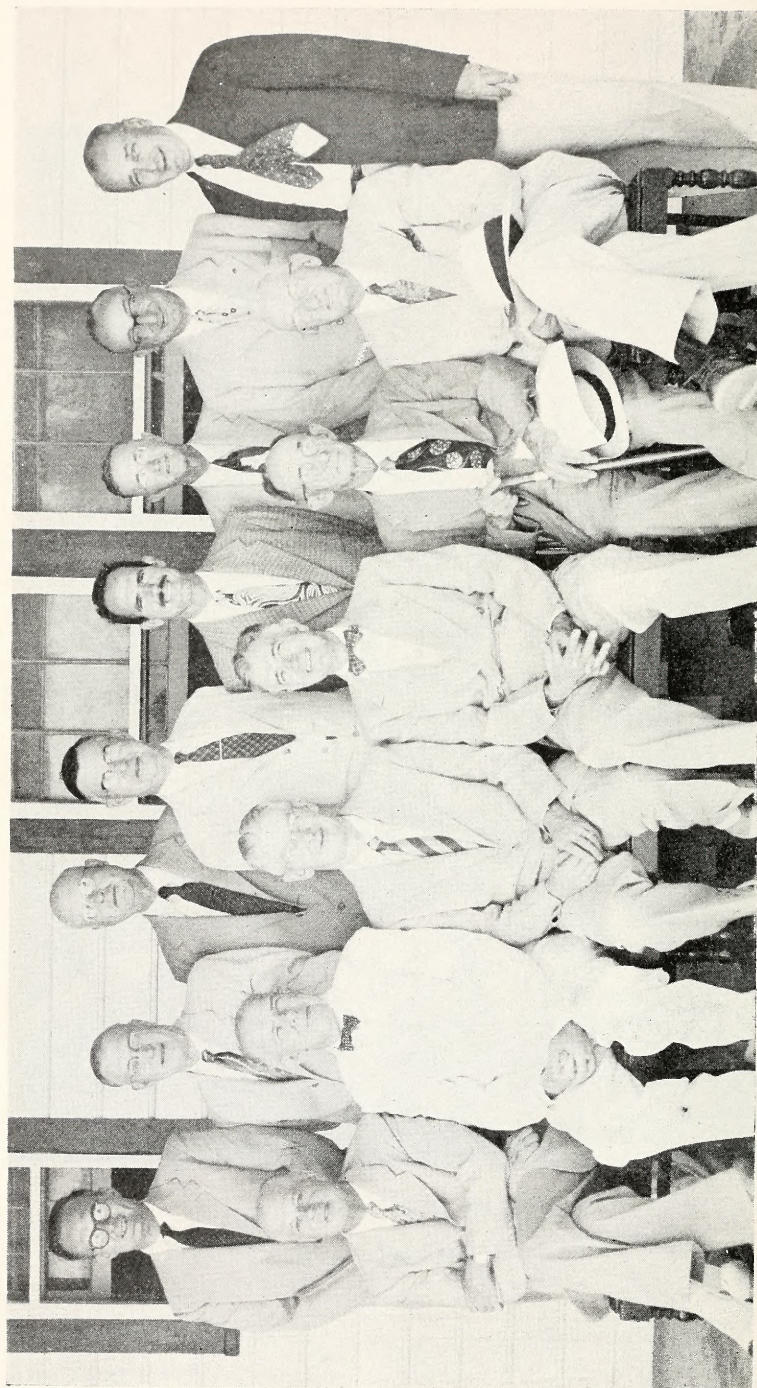
Respectfully,

GEORGE R. ROSS
Director



HON. W. KERR SCOTT

Governor



BOARD OF CONSERVATION AND DEVELOPMENT—1952

Standing: Hugh Morton, C. Sylvester Green, W. B. Austin, A. L. Cavenaugh, Ferd Davis, J. C. Murdock, Staley A. Cook, Buxton White;
 Seated: Chas. S. Allen, Geo. R. Ross, Director; W. J. Damtoft, Miles J. Smith, Fred P. Latham, Charles H. Jenkins;
 Absent: Mrs. Roland McClamroch, W. Locke Robinson.

MEMBERS

of the

BOARD OF CONSERVATION AND DEVELOPMENT

As of June 30, 1952

GOVERNOR W. KERR SCOTT, <i>Honorary Chairman</i>	Raleigh
MILES J. SMITH, <i>Chairman</i>	Salisbury
WALTER J. DAMTOFT, <i>Vice Chairman</i>	Canton
CHAS. S. ALLEN	Durham
W. B. AUSTIN*	Jefferson
AUBREY L. CAVENAUGH	Warsaw
STALEY A. COOK**	Burlington
FERD DAVIS	Zebulon
C. SYLVESTER GREEN	Chapel Hill
CHARLES H. JENKINS	Ahoskie
FRED P. LATHAM	Belhaven
MRS. ROLAND McCLAMROCH	Chapel Hill
HUGH M. MORTON	Wilmington
J. C. MURDOCK	Troutmans
W. LOCKE ROBINSON	Mars Hill
BUXTON WHITE***	Elizabeth City

* * * * *

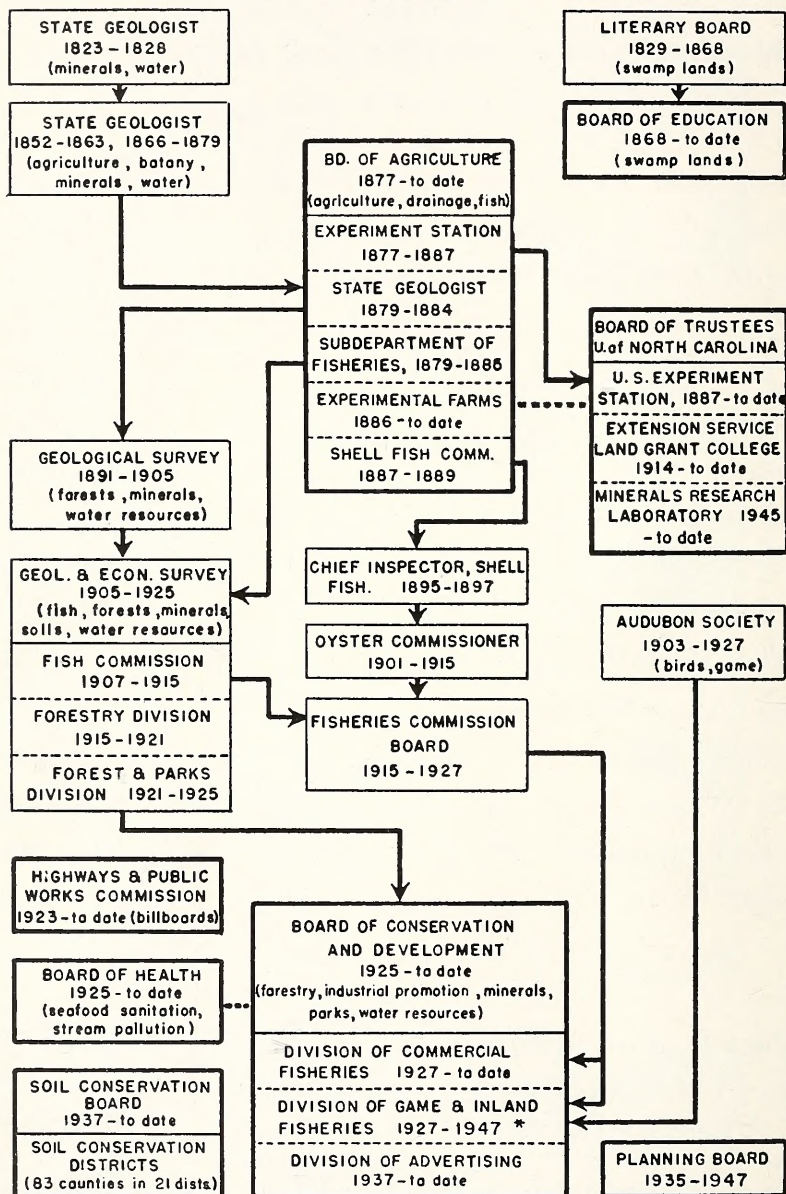
GEORGE R. ROSS, <i>Director</i>	Raleigh
GRACE V. LANE, <i>Administrative Assistant and Secretary to Board</i>	Raleigh

* Succeeded T. V. Rochelle, deceased.

** Succeeded Dr. A. W. Deans, deceased.

*** Succeeded W. Roy Hampton, deceased.

DEVELOPMENT OF STATE AGENCIES ADMINISTERING NATURAL RESOURCES IN NORTH CAROLINA



* The 1947 General Assembly gave authority over inland fish and game to a newly established independent Wildlife Resources Commission.

Foreword

Now we come bearing the records of the fourteenth biennial report of the Department of Conservation and Development.

Seven generations have left their hand prints upon the land since North Carolina became an independent state.

Eight Governors have been inaugurated and twenty-eight General Assemblies have legislated to promote the conservation and development of our natural resources since this Department was established in 1925.

In addition to the duties as set forth in the Act "to promote a more profitable use of the land, forests and water" and "to promote the development of commerce and industry," we have promoted the recreational advantages of the State until our tourist business ranks with agriculture and industry in economic advantages. Since we reported to you for the last biennium, we have seen the tourists come in ever-increasing numbers. This past year we answered approximately 175,000 inquiries.

Our State Parks have opened this season with an increased attendance of fifty per cent over two years ago and the prospect of the demand for more and more facilities.

During the past two years we have promoted a State-wide interest in our water resources, and we solicit the help of every citizen of the State until every practical method is applied for the conservation and wise use of this precious element.

During this period we have experienced the greatest development in our non-metallic mineral resources in the history of this State. North Carolina's more than 300 minerals place her in a strategic position in this field.

We have experienced the greatest growth in expansion of home industries and have located more new industries within the State than at any time in the past.

Our forests are greener; and our woodworking industries are united in a program of cutting down fire losses, of planting seedlings, and of marking trees for cutting.

Our fin fishing, shell fishing and shrimping operations have grown in problems as well as total tonnage. Our oyster plantings, harvests, and markets prove only that we should plant more, protect more, and carefully grade and pack more for an ever-widening market.

An awareness of the relationship between all phases of our activities and their interlocking relationship with other departments and agencies is spreading. North Carolina's potentialities are unlimited. We are ever striving to conserve and develop them.

GEORGE R. ROSS
Director

ORGANIZATION—DEPARTMENT OF CONSERVATION & DEVELOPMENT

*Appointed by Governor

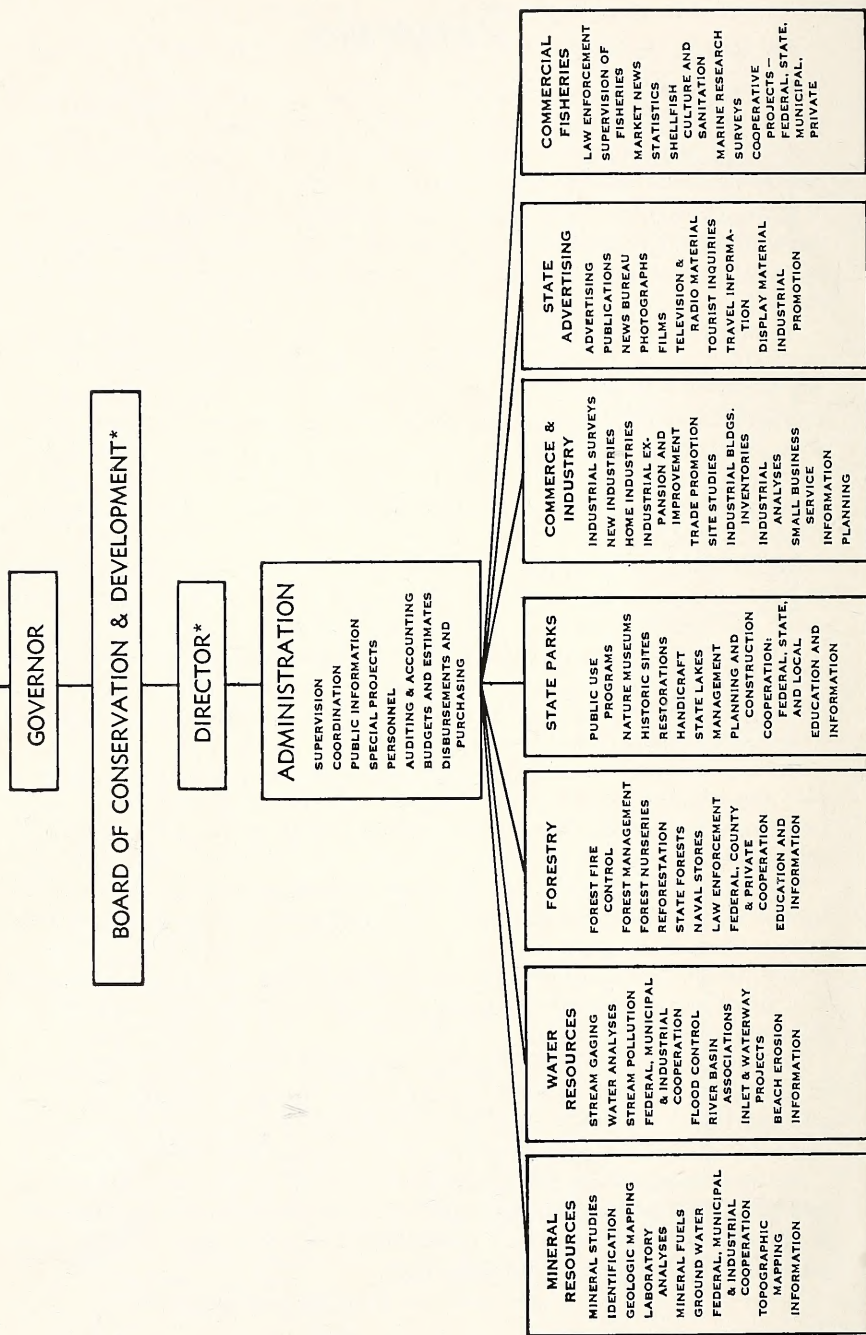


TABLE OF CONTENTS

	PAGE
Letter of Transmittal	2
Chart: Development of State Agencies Administering Natural Resources in North Carolina	6
Foreword: George R. Ross, Director	7
Chart: Organization—Department of Conservation and Development	8
Highlights of Board Meetings, July 1950 - March 1952	11
Division of Water Resources and Engineering	22
Division of Commercial Fisheries	31
Division of Mineral Resources	36
Division of Forestry	41
Division of State Parks	54
Division of Commerce and Industry	69
Division of State Advertising	79
Budgets, Biennium 1950-1952	88
Department Personnel	114



HIGHLIGHTS OF BOARD MEETINGS

July 1950-March 1952

GRACE V. LANE, *Secretary to Board*



JULY 1950—Morehead City:

Members Present—W. Roy Hampton, Chm.; Chas. S. Allen; Oscar P. Breece; A. L. Cavanaugh; Staley A. Cook; W. J. Damtoft; Ferd Davis; C. Sylvester Green; Fred P. Latham; Mrs. Roland McClamroch; J. C. Murdock; W. Locke Robinson; T. V. Rochelle; Eric W. Rodgers; Miles J. Smith.

Major Matters of Business:

Oath of office—Staley A. Cook (replacing Dr. A. W. Deans); committee assignments.

Resolution "In Memoriam" to Dr. Deans.

Resolution of appreciation to Captain John A. Nelson.

Director's report—urged definite program on rural fire control; called attention to Long-Range Forestry Program; suggested review of tax structure to eliminate tax irritations to retired persons and industries; stressed need for (1) vocational and trade schools, (2) legislation and understanding regarding stream sanitation, (3) increased development of Water Resources Division; and (4) study and development of mineral resources since that offers greatest opportunity for employment and creation of new wealth; praised Captain Nelson who was retiring and announced appointment of C. D. Kirkpatrick as Assistant Fisheries Commissioner by Captain Nelson to reorganize sale of licenses and over-all control of police regulations; called attention to importance of parks and need for thousands of small roadside parks; stated need for Information and Statistics Division to inform people of the State about North Carolina.

Advertising—reorganization of Division practically complete; resolution on cooperative committee with State Highway Commission; Bennett Advertising, Inc., program inaugurated.

Commerce and Industry—new industries reported; resolution approving reactivation of Governor's Hospitality Committee as Division of Information and Statistics; steel plant survey authorized; more TVA power requested; joint industrial advertising program approved.

Commercial Fisheries—shrimp hearing planned.

Forestry—Long-Range Forestry Program prepared by North Carolina Forestry Council at request of Board presented to Committee for study and action.

Minerals—ilmenite lease to Burnap and Sims, Inc., authorized.

Inlets and Waterways—progress report; delegates to Rivers and Harbors Congress.

Parks—deed for Hiwasee Lake State Park to be secured; Tryon Palace purchases reported; resolutions regarding Long Beach and Fontana Lake access.

Water—long-time program presented by Edward Rice, District Engineer, U. S. Geological Survey, to be studied; support for increased budget urged.

Buggs Island—cooperative project with Wildlife Resources Commission approved; construction of impoundment dams urged.

Cape Hatteras National Seashore Recreational Area—Shuffler report distributed.

Joint Meeting:

North Carolina Cape Hatteras Seashore Commission—discussion of Shuffler report.

Special Features:

Reception in recognition of Captain Nelson's long years of service to State.

Guest Speakers:

Dr. Harden F. Taylor, Executive Director of Survey of Marine Fisheries of North Carolina—stressed importance of marketing and distribution of sea-food products.

Guests Recognized:

Chas. H. Jenkins—former member of Board.

Colin G. Spencer—Chairman, Governor's Committee on Rural Fire Protection.

J. V. Whitfield—member of Legislature.

Dan M. Paul—Managing Director, N. C. Chain Store Council.

Mrs. J. M. Tyler—State President, N. C. Garden Clubs.

Thomas J. Allen—Regional Director, National Park Service.

OCTOBER 1950—Charlotte:

Members Present—Governor Scott, Honorary Chm.; W. Roy Hampton, Chm.; Chas. S. Allen; A. L. Cavanaugh; Staley A. Cook; W. J. Damtoft; C. Sylvester Green; Fred P. Latham; Mrs. Roland McClamroch; J. C. Murdock; T. V. Rochelle; Eric W. Rodgers, Miles J. Smith.

Major Matters of Business:

Director's report—interest growing in Buggs Island development; personnel classifications completed, some revisions to be necessary; commercial fishing laws being codified; Tryon Palace project progressing, furnishings given by Mrs. Latham on display at Greensboro; trade schools urged; appointment of special committee requested to work on definite plan and program for working with other agencies and departments.

Advertising—inquiries doubled; "Accessible Isolation" theme of industrial advertising schedule; 1950 best tourist year in history—value nearly 250 millions, making it third largest industry in State; reorganization of Division into three sections completed; publications; movies.

Commerce and Industry—new industries amounting to 84 million dollars underway or announced; resolution recommending establishment of trade schools; offer of aid to small businesses; cooperative project to finance steel survey; publications issued; resolution regarding Roanoke River Dam.

Commercial Fisheries—laws being revised and codified after local hearings; offer to purchase part of Morehead property.

Forestry—resolution accepting Long-Range Forestry Program.

Inlets and Waterways—resolution urging enlargement of and support for program of development.

Minerals—oil lease to Coastal Plains Company extended.

Parks—attendance increase of 47%; Morrow Mountain State Park a model for all parks; revision of Mt. Mitchell appropriation requested.

Water—cooperative programs with U. S. Geological Survey being enlarged; Stream Sanitation Bill being considered and studied.

Joint Committee with Highway Commission—cooperative projects on maps, signs and roadside parks planned.

Special Committee on "Points 4 & 5"—to consult with Institute of Government and plan coordinated program.

Resource-Use Project—recordings of "The Silent Siren" played; film, "The Tar Heel Family," released.

Inspection Trips:

Morrow Mountain State Park.

"Industrial" Charlotte bus tour.

Special Features:

Dinner meeting with Charlotte Chamber of Commerce.

Luncheon meeting at Morrow Mountain State Park with members of Morrow Mountain Acquisition Committee and others.

Guest Speakers:

Governor W. Kerr Scott—"Opportunities for Industrial Development."

William E. Warne, Assistant Secretary of Interior—plan of public power development in economy of Nation and North Carolina; value of basin-wide development for multiple-use.

Ben W. Creim, Administrator of Southeastern Power Administration—power potential figures and comparisons of rates.

Colonel W. F. Powers, District Army Engineer—primary purpose of Buggs Island for flood control but a multiple-purpose project; described areas and types of development to be considered.

Dean C. F. Korstian, President, N. C. Forestry Council—reviewed history of forestry program; presented Long-Range Forestry Program for Council.

Guests Recognized:

Colonel Clyde P. Patton, Executive Director, Wildlife Resources Commission.

D. K. King, Member of Wildlife Resources Commission.

F. Knox Watson, President, N. C. Association of County Commissioners.

Members of Morrow Mountain Acquisition Committee.

A. K. Winget—former member of Board.

Dr. J. S. Holmes, former State Forester.

J. Hawley Poole, Soil Conservation Committee.

Representatives of private power companies and railroads.

James S. Stevens, Acting Director, State Recreation Commission.

JANUARY 1951—Raleigh:

Members Present—Governor Scott, Honorary Chm.; W. J. Damtoft, V-Chm.; Chas. S. Allen; W. B. Austin; Oscar P. Breece; A. L. Cavanaugh; C. Sylvester Green; Fred P. Latham; Mrs. Roland McClamroch; J. C. Murdock; W. Locke Robinson; Eric W. Rodgers; Miles J. Smith.

Major Matters of Business:

Oath of office—W. B. Austin (replacing T. V. Rochelle).

Resolutions "In Memoriam" to T. V. Rochelle and W. Roy Hampton.

Election of officers (Miles J. Smith, Chm.); committee assignments.

Director's report—commercial fisheries program a great responsibility of all; unparalleled confidence of "big business" enjoyed; cooperation from other agencies and departments appreciated; this Department a "service" organization; need for funds for Cape Hatteras State Park.

Water—new Federal sedimentation station on Yadkin River; World consciousness of need for conservation and development of all water resources; increased budget request support urged; support pledged to Stream Sanitation Bill introduced in Legislature.

Parks—necessary property, except "West Wing," has been secured for Tryon Palace, the first Capitol of North Carolina; additional parking facilities needed at Mt. Mitchell; additional personnel required in Parks Division.

Minerals—limestone survey disclosed large tonnage of marl in Pender County, difficulties encountered in securing options; ilmenite lease to Burnap and Sims to be approved after revision; oil lease to Davidson Oil Company authorized; resolution endorsing Mineral Museum on Parkway approved; Coastal Plains Company oil lease extended.

Inlets and Waterways—request for funds left out of recommendations of Advisory Budget Commission.

Forestry—rural fire control program would benefit people who own rural property in insurance rates, the Bill being prepared by Governor's Committee in cooperation with Insurance Department and C. & D. Department would be an enabling act, resolution of support and cooperation approved; resolution endorsing program of Pulp Technology at State College School of Forestry.

Commercial Fisheries—lines between commercial and inland fishing waters established and marked; oyster license fees to be collected on calendar year basis; progress report on two new laws being prepared; request for license tax on small fish meal dehydration plants; membership to be continued in Atlantic States Marine Fisheries Commission.

Commerce and Industry—1950 largest year for industrial expansion in history, 104 million dollars and that not complete; $\frac{3}{4}$ of inquiries are for buildings; steel survey being completed; inventory of plant facilities planned, will help small manufacturers.

Advertising—inquiries increasing; program continuing with good results; new booklet for school children and servicemen.

Special Committee on "Points 4 and 5"—resolution requesting Institute of Government to undertake a study and survey and to make suggestions as to how these mandates may be carried out.

Joint Committee with State Highway Commission—report by W. D. Snider, Chm.; praised cooperation on top level; definite progress in planning program; additional legislation to clarify law needed and support of this urged; endorsed by Board.

Buggs Island—report on joint project with Wildlife Resources Commission; certain areas recommended for State development.

Marine Museum—to be named for W. Roy Hampton with dedication service at July meeting of Board at Morehead.

Inspection Trip:

Colonial Stores Warehouse; luncheon with special guests—hosts N. C. Chain Store Council.

Guest Speakers:

Governor W. Kerr Scott—expressed deep interest in Board and its work.

Carroll P. Rogers—stressed need for letting people know of mineral resources and possibilities of development, over 260 kinds in addition to semi-precious gems.

S. T. Henry—Mineral Museum would be wonderful help in advertising mineral resources; urged support of it.

Sam P. Weems, National Park Service—would be glad to cooperate, etc., in project and would give perpetual care when completed.

J. V. Whitfield—naval stores project beginning to expand; favorable report on Stream Pollution Bill expected; urged establishment of a Foundation for Forestry School at State College.

Guests Recognized:

R. Bruce Etheridge, former Director of Department of Conservation and Development, Member of Legislature.

T. J. Collier, Representative from Pamlico County.

Geo. W. Dill, Jr., Representative from Carteret County.

Harry A. Greene, Representative from Hoke County.

Lewis L. Combs, Representative from Tyrrell County.

E. G. Anderson, Representative from Martin County.

Russell A. Swindell, Representative from Hyde County.

Geo. M. Grant, early member of Commercial Fisheries Commission.

APRIL 1951—Raleigh:

Members Present—Miles J. Smith, Chm.; W. B. Austin; Oscar P. Breece; A. L. Cavanaugh; Ferd Davis; C. Sylvester Green; Mrs. Roland McClamroch; Eric W. Rodgers.

Major Matters of Business:

Director's Report—discussion of pending and proposed legislation; Stream Pollution; Rural Fire Protection; Commercial Fisheries; etc.; proposed U. S. Forest Service Survey of North Carolina; Governor's Small Business Committee; meeting at Asheville Laboratory to encourage mineral production.

Commercial Fisheries—Snow Cut project; reciprocal shrimp agreement with Mississippi; shad season extended; rules and regulations to be revised.

Commerce and Industry—cooperation with Small Business Committee; steel survey presented and potentials discussed.

Parks—development of Cape Hatteras State Park planned; permanent improvement program discussed; report on Short Course at State College for Park personnel; Committee to visit all Parks.

Minerals—Davidson Oil Company lease approved.

Advertising—fall schedule planned; advertising contract to be let by Committee, with approval of Governor.

Inlets and Waterways—Rivers and Harbors Congress; effort to open Oregon Inlet.

Water—river basin associations to be encouraged; renewed interest in drainage districts, impoundment dams and irrigation.

Guests Recognized:

Roland McClamroch, President, N. C. Wildlife Federation.

R. D. Coleman, Champion Paper and Fibre Company.

Geo. W. Dill, Representative from Carteret County.

Attorney General Harry McMullan.

JULY 1951—Morehead City and Manteo:

Members Present—Governor W. Kerr Scott, Honorary Chm.; Miles J. Smith; Chas. S. Allen; W. B. Austin; A. L. Cavanaugh; Staley A. Cook; Ferd Davis; W. J. Damtoft; C. Sylvester Green; Chas. H. Jenkins; Fred P. Latham; Mrs. Roland McClamroch; Hugh M. Morton; J. C. Murdock; Buxton White.

Major Matters of Business:

Oaths of Office—new: Chas. H. Jenkins (replacing Eric W. Rodgers); Hugh M. Morton (replacing Oscar P. Breece); Buxton White (replacing W. Roy Hampton); reappointments: W. B. Austin, Fred P. Latham, Miles J. Smith; committee assignments.

Resolution of appreciation to Messrs. Breece and Rodgers.

Water—(combined with Committee on Inlets and Waterways)—resolution endorsing effort to obtain extra funds within the Department; reendorsement of previous resolutions on delegates to Rivers and Harbors Congress and requesting cooperation from National Congress for developments; report on current projects; dock and channel improvements on local basis urged.

Special Committee on "Points 4 & 5"—progress report from Dr. Coates of Institute of Government; Conservation Congress to be expedited.

Parks—progress report; report on Historical Marker Program; resolution accepting bequest in will of Mrs. Maude Moore Latham to Tryon Palace Restoration and expressing appreciation for her generosity and to Mr. and Mrs. J. A. Kellenberger for their cooperation and help; property purchase report; resolution accepting deed for James Iredell property in Edenton; Hiwassee deed unsatisfactory and cancellation of lease requested; State Parks visits report; transfers in Permanent Improvement Funds; Ashe County property to be investigated for State Park purposes, also Waccamaw.

Minerals—extension of Coastal Plains Company oil lease; ilmenite lease to National Lead Company authorized.

Forestry—annual deer hunt authorized; budget approved for U. S. Forest Service Survey; Dare County cooperation reported.

Commerce and Industry—endorsed resolution on water resources; industrial advertising schedule approved; resolution commending Governor W. Kerr Scott for assistance in industrial expansion program; resolution urging support of Governor's Small Business Committee; resolution urging consideration of dispersal of new industrial facilities; activities summarized.

Advertising—approval of extending advertising contract to Bennett Advertising, Inc., of High Point; approval of setting up State Travel Bureau; approval of slogan "Variety Vacationland" on N. C. auto license tags; approval of short form signatures in certain instances.

Commercial Fisheries—shrimp regulation suspensions extended; readoption of regulations; resolution regarding target areas; resolution placing Commercial Fisheries Division in same category as other Divisions of Department; shrimp boats to be taxed as trawl boats; PAMLICO and HATTERAS to be disposed of; validity of reciprocal agreements to be ascertained; report on Oyster Propagation Program; duties of Commissioner of Fisheries outlined; logs for boats to be kept; regulations adopted; hearing on channel bass.

Inspection Trip:

Cape Hatteras State Park.

Guest Speakers:

Dean Malcolm E. Campbell, State College Textile School—offered cooperation in research projects.

Senator S. Bunn Frink—protested shrimp boat tax; requested restoration of Section 113.238 repealed by 1951 Legislature; favored reciprocal agreements with other States.

J. V. Whitfield, Representative from Pender County—reported on progress of Naval Stores Project.

Guests Recognized:

Colonel Geo. W. Gillette, N. C. State Ports Authority.

Mayor E. L. White, Wilmington.

Russell A. Swindell, Representative from Hyde County.

Captain John A. Nelson, former Commissioner of Fisheries.

Dr. H. F. Prytherch, Beaufort.

John Marshall, Private Secretary to Governor W. Kerr Scott.

Ben Thompson, National Park Service.

R. Bruce Etheridge, former Director of Department of Conservation and Development and Dare County Representative.

Major J. L. Murphy, Kill Devil Hills.

Senator Steve Askew, Windsor.

AUGUST 1951—Bayboro:

Members Present—Miles J. Smith, Chm.; Chas. S. Allen; A. L. Cavanaugh; Staley A. Cook; C. Sylvester Green; Chas. H. Jenkins; Fred P. Latham; Mrs. Roland McClamroch; Buxton White.

Major Matters of Business:

Commercial Fisheries—order authorizing seizure of shrimp trawlers unless license tax is paid; regulation adopted in regard to fishing in Chowan River; dividing line approved; appointment of C. D. Kirkpatrick as Fisheries Commissioner approved.

OCTOBER 1951—Winston-Salem:

Members Present—Governor W. Kerr Scott, Honorary Chm.; Miles J. Smith, Chm.; Chas. S. Allen; W. B. Austin; A. L. Cavanaugh; Staley A. Cook; W. J. Damtoft; Ferd Davis; C. Sylvester Green; Chas. H. Jenkins; Fred P. Latham; Mrs. Roland McClamroch; Hugh Morton; J. C. Murdock; W. Locke Robinson; Buxton White.

Major Matters of Business:

Water—readopted 8-point long-range program; over-all use of each river basin to be planned; support of local organizations and individuals urged.

Parks—resolution approving transfer of First Maude Moore Latham Trust Fund for restoration of Tryon Palace to the Department; resolution approving firm of Perry, Shaw, Hepburn, Kehoe and Dean as architects for restoration of Tryon Palace; resolution requesting termination of TVA lease for Hiwassee; approved transfer of \$50,000 Permanent Improvement Funds to Cape Hatteras State Park; continued assistance offered in Buggs Island development; report on status of Naval property at Ocracoke; report on inspection and plans for joint park and forestry development of Mt. Jefferson (Ashe Co.); citation from Garden Club.

"Points 4 & 5"—analysis of total resources of State progressing; Conservation Congress plans outlined; possibility and need for course in conservation at University being studied.

Minerals—ilmenite lease to National Lead Company approved; statement on water table level.

Forestry—interest expressed in location to preserve Venus Fly Trap; resolution approving payment to Bladen County in lieu of taxes on Bladen Lakes State Forest property; U. S. Forest Service survey agreement approved; statements on dismissal of State Forester Beichler; resolution in regard to filling position of State Forester.

Commercial Fisheries—regulations amended, repealed and adopted; report on destruction of small fish; experiments with 200 pound dredge to be conducted.

Commerce and Industry—trends of diversification and dispersion manifested; summary of activities; resolution stressing importance of wise use of resources; resolution urging continuation of support of Governor's Small Business Committee.

Advertising—resolution setting policy with regard to cash grants; advertising schedule adopted.

Coordinating Committee—cooperate with Committee from Wildlife Resources Commission on matters of mutual interest.

Inspection Trips:

Ground-breaking for new Wake Forest College plant (President Truman present).

Western Electric Corporation.

Raleigh Angel Farm—Chamber of Commerce barbecue.

Guest Speakers:

Governor W. Kerr Scott—emphasized his belief that development of an overall water resources program for the State was the major problem in conservation.

Wally Dunham—explained program for Rural Fire Protection in Forsyth County and outlined its value.

Colonel R. C. Brown, District Army Engineer—explained hopper dredge; reported on functions of Corps of Engineers, particularly with respect to water resources phases.

N. C. Magnuson, Corps of Engineers—discussed projects.

Dr. S. H. Hobbs, Jr.—discussed water development program as it relates to multiple-use of river basins in North Carolina.

Honorable Thurman Chatham, Representative in Congress for 5th District—predicted tourist industry would continue expanding; urged study of European methods to capitalize on tourist trade.

Guests Recognized:

Earl B. Garrett, State Soil Conservationist.

Colonel Geo. W. Gillette, Executive Director, N. C. State Ports Authority.

Dean C. F. Korstian, Duke School of Forestry.

Representatives of Stream Sanitation Committee.

Representatives of private power companies.

JANUARY 1952—Raleigh:

Members Present—Miles J. Smith, Chm.; Chas. S. Allen; W. B. Austin; A. L. Cavanaugh; Ferd Davis; C. Sylvester Green; Chas. H. Jenkins; Fred P. Latham; Mrs. Roland McClamroch; Hugh Morton; J. C. Murdock; Buxton White.

Major Matters of Business:

Forestry—approved appointment of Fred H. Claridge as State Forester (oath administered); reported payment made to Bladen County in lieu of taxes; forest survey started; cooperative agreement between Parks and Forestry on Ashe County park development.

Director's Report—Department should let people of North Carolina know more about the State through schools and otherwise; called attention to chart showing development of Department; requested Special Budget Committee; wonderful progress in advertising and commerce and industry; commercial fisheries of vital concern; small harbors and fishing lanes must have attention; forestry of major importance; interest in minerals spreading; expanded State Park program will pay dividends; conservation and development of water resources necessary for domestic and commercial use; temporary arrangement for public information work.

"Points 4 & 5"—plans on schedule; preliminary program on Conservation Congress being worked out.

Advertising—terrific progress being made; urged copies of new film be bought by Department.

Commercial Fisheries—CAPE LOOKOUT purchased, regulations amended, adopted, repealed; resolution requesting study and recommendations on Commercial Fisheries tax structure.

Commerce and Industry—decided trend toward diversification; investment of \$112 million and expanded payrolls and employment over past year; contacts in New York are recommended; advertising schedule particularly effective.

Minerals—ilmenite lease to Burnap and Sims, Inc., approved.

Parks—termination of Hiwassee lease requested; transfer of \$10,000 to Tryon Palace for land purchase authorized; private development of facilities at Cape Hatteras endorsed; requested change in name of Ashe County park site to Mount Jefferson; cooperation promised in establishment of botanical garden; citrus fruit from Hatteras displayed.

Water—8-point program being advertised throughout State; interest in establishing river basin associations; cooperation desired with related agencies.

Special Dinner Meetings:

Governor and Mrs. Scott, hosts at Governor's Mansion—first showing of film "Tarheel State."

Director and Bennett Advertising, Inc., hosts at Sir Walter—members of Council of State and other special guests; Long-Range Agricultural Program—"The Challenge" presented; forerunner of Conservation Congress.

Inspection Trip:

Tungsten Mine, Henderson; luncheon.

Guest Speakers:

Wm. G. Perry, Architect, Boston—importance of Tryon Palace project and procedure to be followed; emphasized fact that before work is started it is necessary to have complete project in mind.

Senator Wesley C. Watts, Robeson County—requested consideration of Red Banks Section for State Park.

Guests Recognized:

Mrs. J. A. Kellenberger, Chm., and members of Tryon Palace Commission.

W. D. Reynolds, Robeson County Manager and others from Pembroke area.
Dean C. F. Korstian, Duke School of Forestry.
Dean R. J. Preston, N. C. State College School of Forestry.
Don P. Johnston, President, American Forestry Association.
Roger W. Wolcott, President, North Carolina Forestry Association.

MARCH 1952—Wilmington:

Members Present—Miles J. Smith, Chm.; Chas. S. Allen; W. B. Austin; A. L. Cavanaugh; Staley A. Cook; Ferd Davis; W. J. Damtoft; C. Sylvester Green; Chas. H. Jenkins; Fred P. Latham; Mrs. Roland McClamroch; Hugh Morton; J. C. Murdock; Buxton White.

Major Matters of Business:

"Points 4 & 5"—detailed report on plans for Conservation Congress; dates set for Raleigh, November 17-21.

Advertising—inquiries 25% ahead of last year; new booklet "Variety Vacation-land" ready for distribution; endorsement of request to Congress for \$3,000,-000 appropriation for Parkway.

Commercial Fisheries—planting of oysters likely to be destroyed in New River area in private or public grounds approved; \$650 authorized for studying the effect of dredging oysters; night shrimping allowed in certain area; study to be made of heating facilities at Section Base; regulations amended, adopted; \$200 per year authorized for Marine Museum; shad season extended in certain areas; purchase of MARS authorized to replace OCRACOCKE.

Commerce and Industry—advertising schedule approved; resolution favoring expansion of Technical and Vocational Education facilities.

Forestry—resolution requesting study of possibility of acquiring "demonstration area" in northeastern section of State; resolution setting up committee to study steps needed to combat forest insects and diseases; resolution suggesting consideration of forest fire tower sites as roadside parks; resolution offering cooperation of Forestry Division in establishment of botanical garden at Hatteras.

Minerals—resolution authorizing execution of working agreement with State College Department of Engineering Research so as to coordinate programs.

Parks—sublease of Hiwassee State Park authorized, subject to approval of TVA; land acquisition at Mt. Mitchell to be pursued; development of Cape Hatteras State Park to be restudied in light of possibility of getting paved roads; transfers authorized in Permanent Improvement Funds; State Highway Commission requested to investigate feasibility of constructing over-look at Fort Macon; cooperation in Handcraft Exhibition authorized; Tryon Palace Project progressing; permit issued by National Park Service permitting sub-leasing of Naval property at Ocracoke.

Water—discussion with interested parties of over-all water development program; report on Federal projects, including snagging of Trent River and possibilities for development of small ports and waterways; resolution authorizing development of a plan for improvement and operation of "Marine Highways;" film, "Pipeline to Clouds," shown.

Special Features:

Luncheon at Orton Plantation as guests of Mr. and Mrs. J. L. and Kenneth Sprunt, along with Governor and Mrs. W. Kerr Scott, members of Highway Commission, State Ports Authority and others.

Banquet session of Eastern North Carolina Press Association.
Fifth Azalea Festival Parade and luncheon and other festivities.

Guest Speakers:

Carl D. Shoemaker, Conservation Director of National Wildlife Federation—
called attention to National policy for land-use in United States adopted by
Resources Council of America in Franklin, N. C., in October 1951 and by
North American Wildlife Conference in Miami in March 1952.

DIVISION OF WATER RESOURCES AND ENGINEERING

W. H. RILEY, *Hydrologic Engineer*

INTRODUCTION



Water has always played an important part in the growth and development of North Carolina. Early settlers located on bodies of water to furnish means of transportation for themselves as well as for shipping their products to and from markets. As better modes of transportation were developed, water transportation declined and settlements moved farther from large bodies of water and settled on higher ground. Still there was a water problem facing them, as life cannot exist without water. Today, some towns have outgrown their water supply and cannot expect to progress unless a larger supply can be found. As time goes on more towns

will follow these and unless more attention is given to the conservation of her water resources North Carolina will find she can no longer grow.

In a report to the President by the President's Materials Policy Commission the following paragraphs can be found:

"With the exception of the air he breathes, water is the most essential single material which man uses. Indispensable in directly sustaining all plant and animal life, it is hardly less important in its other myriad uses. Water is the master solvent and cleaner, and most efficient medium for transfer of heat and energy, both solar and man-controlled. It is the vehicle which affords the cheapest transport of heavy and massive produce and the disposition and dilution of most man-made waste."

"Water is readily available for use as a vapor, a liquid, or a solid. Its diverse and unique physical properties are constantly being exploited to add to man's comfort and well-being. Water was one of the first natural resources which man harnessed for use; the ancient Egyptians were using water from the Nile River for irrigating land at least 5,000 years ago. Today water remains a universal requirement for our material needs and a keystone to our long-range security."

PERSONNEL

Much of the work of this Division has been curtailed due to the lack of personnel. At present, the permanent personnel consists of W. H. Riley, Hydrologic Engineer; F. E. Day, Civil Engineer II; Chas. B. Pickering, Chemist I; Miss Katy Margaret Bennett, Typist-Clerk II and a vacant position, Civil Engineer I. The salary for the vacant position is so low that a qualified full-time engineer cannot be found, so the position has been filled by temporary employees, consisting of students from State College and girls. These temporary employees have done excellent work in the jobs that have been assigned to them, but for a great many jobs that come up they are not qualified. In order to carry on the work and meet the demands, additional qualified personnel must be secured.

During this period, Mr. C. O. Butler was secured by using funds from some other source as a contact and publicity man for this Division. Mr. Butler did an excellent job for about six months and then resigned to take a position in Mexico.

STREAM GAGING

North Carolina's water supply constitutes one of her greatest assets. If the greatest beneficial use is to be had of this resource it is highly important that a continuous and dependable inventory of the supply be maintained. The State has already suffered injury and many burdens by the development of facilities based on too little hydrologic information.

The development of the water resources in the State has too long followed the lines of least resistance. The more easily constructed projects have been largely developed. Yet much remains to be done before our water supply is fully utilized. Definite and dependable data relative to the flow of streams and the availability of water for storage must be obtained if future development is to be had along safe and economic lines.

The natural flow of our streams is rapidly becoming fully utilized. The projects of the future must depend to a very great extent upon water conservation, the use of storage reservoirs and other means of utilization. In the planning and building of these works the expenditure of large sums of money will be involved. It is necessary, therefore, that all the elements entering into the project, including water supply, are well understood and definitely known if the financial needs are to be met and money obtained for such work.

Without dependable stream flow records it will be quite impossible to conceive a use of North Carolina's water resources which will give the ultimate greatest benefit to its present and future citizens. Nor will it be possible to properly coordinate the use of the great natural resources for water supply, waste disposal, manufacturing and power purposes unless these stream flow data are available. In the construction of permanent improvements such as highways and railroads and other facilities along our streams and within the watersheds, it is important that all possible future use of the water supplies be considered and these supplies protected. This can be accomplished only through a full consideration of stream-flow data along with other factors.

Unlike other data, stream-flow records of a type to be completely useful cannot be obtained in just a day or a year, but must be secured uninterruptedly and continuously over a number of years in order that the most reliable and intelligent use of this information can be made. The fact that runoff from a given drainage area differs materially from one year to another is well understood but the value of obtaining continuous records of flow for long periods of years is frequently overlooked. No amount of money available in the future can ever supply stream-flow records not collected now. "The mill does not grind with water that has passed."

Hydrologic data are now being collected in North Carolina by the trained organization of the United States Geological Survey under a cooperative agreement whereby monies appropriated by the State for this work are matched on a dollar-for-dollar basis by the Federal Government. Records are thus secured with the economy to be gained from a single organization under a uniform system and recognized accuracy standard.

The data collected and analyzed as part of the investigations of water resources of the State have been of incalculable value to the economy of North Carolina because of the necessity for and use of such information for the evaluation of water supplies for industries and municipalities; for pollution studies; flood control and drainage surveys and many other related problems. During the past year alone over a hundred reports were prepared for the Division of Commerce and Industry relative to potential industrial sites and these reports have played no small part in the final location of many

industries in North Carolina. In addition innumerable similar requests from other sources have been met.

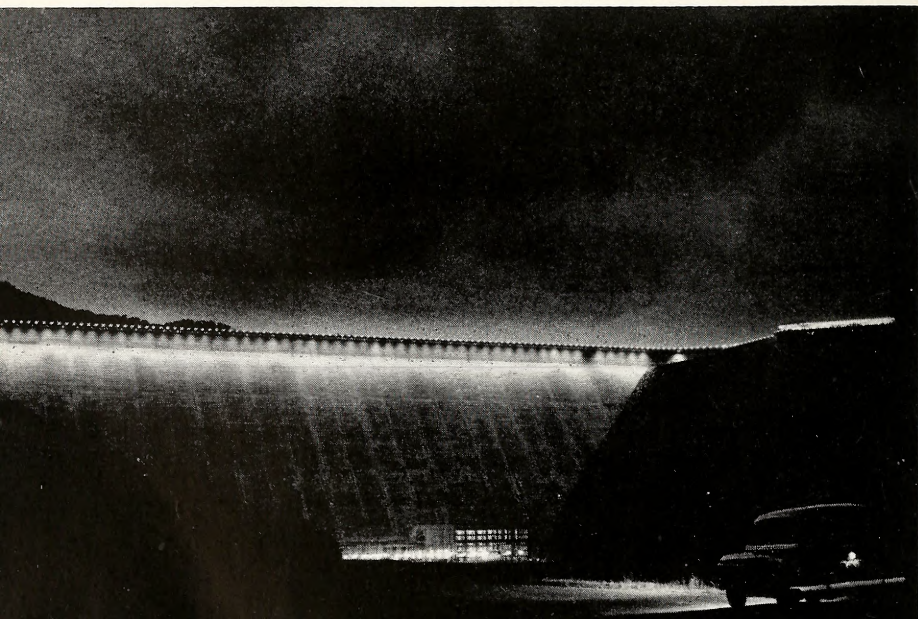
During the biennium water resources investigations were carried on through the continuation of cooperative agreements with the United States Geological Survey. The stream gaging program in North Carolina is under the direction of Mr. E. B. Rice, District Engineer, and was financed in part by funds made available by the Division of Water Resources and Engineering which were matched by the Federal Government. Additional funds for this important work also were provided by the U. S. Geological Survey, the Corps of Engineers, the Department of Defense, the Tennessee Valley Authority, municipalities, power companies and private industry.

As in previous years, the contribution by the State toward the cooperative surface water investigation program is still only about one-quarter of the total cost of the program. This is far from being adequate if the services to be rendered by this program are to be improved or even continued in their present scope, particularly since some of the Federal agencies which have been contributing toward the program are having to withdraw part of their support as their funds have been cut by the Congress.

During the biennium an average of about a hundred and thirty-five gaging stations will have been operated at various sites on many of the streams of the State. In addition, work was continued on the collection of occasional discharge data at over a hundred miscellaneous sites scattered over the State so as to expand as much as possible information on the State's water resources. Although data collected in this manner are not nearly as satisfactory as the data collected at the regular gaging stations, such data are proving extremely useful in evaluating dependable low water yields.

The hydrologic phenomenon during the biennium was highlighted by the severe and widespread drought which extended from May until October 1951 and resulted in serious water shortages over the State.

Huge dam helps control flooding and puts water power to work



QUALITY-OF-WATER

The quality-of-water investigation in North Carolina during 1951-1952 was conducted in accordance with the program discussed and established by representatives of the North Carolina Department of Conservation and Development and the U. S. Geological Survey.

As a matter of information, some quality-of-water investigation has been conducted intermittently since 1906. However, since 1943 a continuous cooperative program has been conducted by the State and Federal agencies mentioned above.

Under this type of cooperation, the program is supported financially by the State and the Federal Government, resulting in a more comprehensive program than could be realized if either agency were operating alone. Any funds established on a cooperative basis by the State are matched essentially dollar-for-dollar by the Federal Government.

For each of the years, 1951 and 1952, funds in the amount of \$8,050.00 were approved by the State for the chemical quality-of-water investigation. Of this total amount, \$2,750.00 was contributed by the State Board of Health for work on public water supplies, and \$5,300.00 by the North Carolina Department of Conservation and Development for determination of the chemical quality of surface waters. In addition, the salary of a State employee working in the laboratory of the U. S. Geological Survey was paid by the State. The total amount of funds contributed by the State was \$11,330.00. This figure was matched dollar-for-dollar by the Federal Government, establishing a budget of \$22,660.00.

In addition to matching the State cooperative offering, the Federal Government financed the establishment and operation of a sedimentation index station in the State. For the 1951 fiscal year, the amount was \$2,400.00. In 1952, \$3,700.00 was allotted for the work.

The long-range program is to obtain information on the chemical quality-of-water resources in the State in order to have this data available for use for industrial, municipal, and agricultural planning in the State, for inter-state basin studies, and for integration in the study of water resources of the United States.

Why is an investigation of the chemical quality of water necessary? In answer, it may be said that water has been, is, and will be an essential factor in the personal and economic life of man. The need of water for his personal existence is taken for granted. Industrially, water has many uses from process water to the turning of large turbines for generation of power. Throughout the years, it has become apparent that chemical quality is a very important and often the critical factor in the utilization of water.

In order to determine the utility of water, knowledge of its chemical character is essential. It is essential to the State concerned with the problem of having adequate water supplies of good quality to satisfy increasing requirements of growing municipalities and to attract and expand industrial activity. It is important to an industry seeking a location. Research has shown that many waters were unsuitable for various sensitive processes because of the chemical quality of the water. In turn, the products and the cost of operation is increased. The same is true of the water-works engineer. He, too, is interested in plant facilities and their operational cost. The public health officer is interested in the chemical character of water as it may affect the health of a community. It is readily seen that chemical quality of water has many ramifications.

Each year in 1951 and 1952 ten stations were established on streams and rivers at points deemed best by State and Federal representatives to serve the interests of the public. Samples of water were collected and analyzed for chemical content. Also temperature data were recorded for the stations. Each year a total of 2,190 daily samples and 48 monthly samples were collected at the stations. In addition, considerable work was done in collecting spot samples at miscellaneous points in order to enlarge the background of chemical data of surface waters in North Carolina for immediate use and future consideration.

The public water supply program was carried on concurrently. Questionnaires were sent to public water supply officials in order to obtain needed information about each respective water supply as to supply, capacity, and treatment. Samples of water of both raw and treated waters were obtained and analyzed.

The data obtained were transmitted to the officials concerned and all interested parties. The data, also, appeared in annual reports. In 1951, the report entitled "The Chemical Character of Surface Waters of North Carolina, 1949-1950" by F. H. Pauszek and K. F. Harris was published. A report covering the year 1950-1951 has been prepared and will be printed shortly. These publications have a widespread distribution. Requests for these publications have been received from all parts of the United States. Industry is especially interested in the data on the quality-of-water in North Carolina.

Generally, the surface waters of North Carolina, which were studied, were found to be of good quality and from the standpoint of mineral content were satisfactory for domestic and industrial use.

How about future plans? Water being a vital necessity, not only immediate needs should be considered but future needs should be anticipated and plans made accordingly. As the State develops industrially and grows in population, plans should not only be made to uncover new adequate sources of water supplies, but factors which influence the availability of water supplies should be studied.

In order to plan for future needs, the present program of quality-of-water investigation should be continued and expanded. The chemical character of water is ever changing due to natural and man-made processes. Only through a broad continuing program is it possible to have the necessary data needed for evaluation of the suitability of waters for domestic, industrial, and agricultural use; for basic planning for the development and conservation of water supplies, and in evaluating the potential utility of waters on the basis of materials in solution and suspension. The data obtained will aid materially in studying water problems which were considered of less importance in the past but which are becoming more and more prominent.

One such problem which deserves serious consideration is salt water intrusion. Because of its geographic location, about one-fourth of the State of North Carolina is exposed to varying degrees of salt water contamination of its surface as well as ground water sources. This problem will become more pronounced in such areas as Wilmington and Morehead City, because the deepening of the river channels in those areas will extend the tidal reach.

To date, only meager and inconclusive data are available. In order to remedy this situation the study of quality-of-water investigation should be expanded to determine the variations and extent of salt water intrusion in the tidal reach of streams in the coastal areas.

Another problem is that of sedimentation. With increased industrial activity and growth of population adequate storage reservoirs will have to be provided

for the storage of water for use as needed. Data on sediment load in streams are a prerequisite for determining the design and economic life of reservoirs. Such information also is needed to determine suitable hydroelectric and flood control structures. Again, only meager data are available.

There is an ever-increasing demand for reliable data on temperature of surface and ground waters. Temperature of water is proving an important factor in considering location of industrial plants, in the utilization of the supply in industrial processes and in the design of heat exchanges and condensing units for steam-power generation plants and for other installations. In North Carolina, temperature data are being collected in conjunction with the chemical quality-of-water program. However, more comprehensive data should be obtained by mechanically recording temperature data over a twenty-four hour period, day in and day out.

In order to expand the quality-of-water program, additional funds are needed. Funds allotted for the past two years were in the same amount as those allotted four years ago. Since that time, cost of operation and salaries of personnel have increased. Recently, the office and laboratory of the U. S. Geological Survey had to be moved to a new location. This expense and other overhead expenses of rent and utilities are being borne without any additional financial assistance. In order to maintain the present program, additional funds are needed; and to begin an expanded program, the budget should be increased substantially. The amount of \$12,000.00 has been requested in order not only to cover additional expense of the present program but to expand it to include the studies of water resource problems mentioned above.

Water is a valuable natural resource in North Carolina. It should be used to the best advantage. However, only through a systematic program, accumulation of basic data, and evaluation and planning can this valuable natural resource be used advantageously.

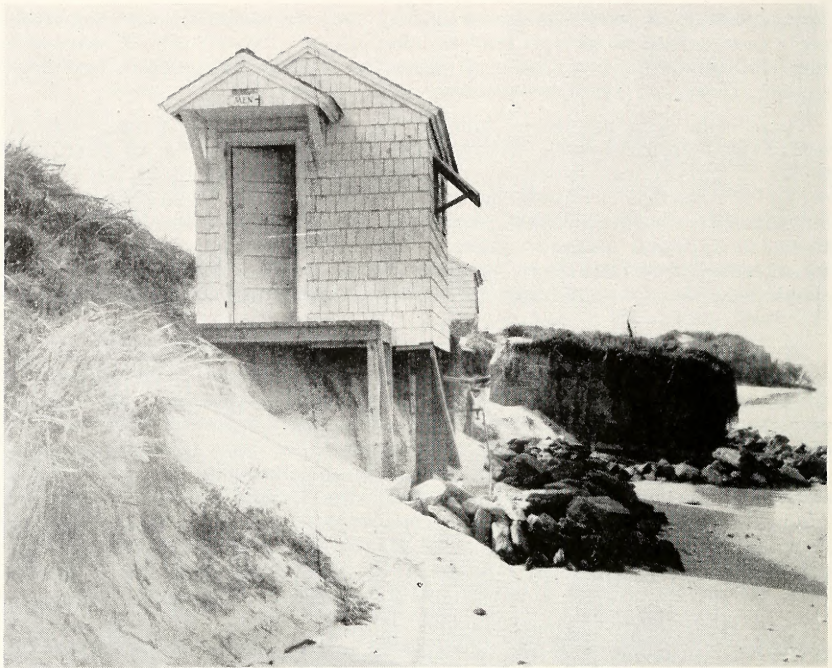
COASTAL STUDIES

Due to the lack of personnel actual field surveys could not be made. In order to keep posted on what is taking place photographs have been taken each year at Fort Macon, Wrightsville Beach and Carolina Beach. No photographs were taken in the Nags Head section as the question of making this a National Park was being discussed. These pictures show clearly the sections of the beaches that are eroding, but nothing definite can be told of the actual amount. Actual surveys were discontinued in 1940 and no survey has been made since. It will take the services of at least 2 additional engineers to run these surveys.

There have been requests for help in reducing the erosion at Nags Head and Holden Beach. These beaches are privately owned and all that could be done was recommend the type of protective works that should be used. As this type of construction is costly, nothing has been done as few individuals have the money to build them. Nags Head has been eroding comparatively slowly, amounting to only a few feet each year; while Holden Beach has been severely eroded in the last year. Both of these beaches should be protected.

Fort Macon State Park has a severe erosion problem in Beaufort Inlet. A request for a study by the Beach Erosion Board has been requested. It is questionable just what can be done since Congress has practically eliminated the funds for this type of work. Unless something is done very soon there is a chance that the parking area at Fort Macon will be destroyed.

Another problem that has been presented to this Division has been shore erosion on lakes and rivers. Requests have been received for inspections at



Erosion at Fort Macon State Park.

Lake Waccamaw and Camp Don Lee. At Lake Waccamaw erosion has reached the point that if something is not soon done the roadway will be endangered at several points. The edge of the bank is now only about three feet from the edge of the road. At Camp Don Lee one of the buildings is endangered and protective works should be built immediately.

This Division has recently taken membership in the American Shore and Beach Preservation Association. This organization is composed of people interested in shore and beach erosion from practically every coastal state in the United States. Much assistance can be received from this group in solving many of the problems of erosion in North Carolina. At the recent meeting at Atlantic City, New Jersey, an inspection trip was made to see the protective works from Atlantic City to Cape May. This trip was very instructive as New Jersey has done an excellent job in solving this problem. Many types of groins and jetties were seen and the advantages and disadvantages of each type explained.

HYDROLOGICAL INVESTIGATIONS

Evaporation studies at Lake Michie and Chapel Hill have been continued. Several requests for this information were received during the drought period of 1951. This study is very important to agencies that have to depend on large reservoirs for their water supply. Although the daily evaporation figure is very small, if taken over a period of a month on a large body of water the loss will be unbelievably large.

Work has been continuing on collecting rainfall data and assembling it so that it can be readily used. Annual reports are made by the Weather

Bureau, but it is almost impossible to work with data in this form. These data have been assembled for each station for the period of operation for that station. Maximum, minimum and average rainfall has been computed for every station in the State. In addition to assembling data on rainfall several duration tables have been worked up on stream gaging stations over the State. These duration tables are very useful in determining the dependable flow that can be expected at given points.

Three publications have been published during this period. Two of these were publications on the quality-of-water showing the analyses of water that had been run during that year. The other was one of a series on Hydrologic Data for various river basins. This is the sixth of the series and is entitled "Hydrologic Data on the Roanoke and Tar River Basins."

RIVER BASIN ASSOCIATIONS

This Division has long felt the need of help in making over-all plans for any river basin. The help needed is not only technical but also help from the people in each river basin. For years, technical information has been collected in the files and comparatively little use has been made of it. By organizing the citizens in the river basins of the State and presenting these data in a way they can understand, it is felt the citizens can be a great help in making over-all plans for the future wise use of the water resources of their river basin.

Two river basin associations had been organized prior to July 1950. One of these was the Roanoke River Basin and the other was the Neuse River Basin. The Roanoke River Basin Association has done a great work in development of the water resources of the Roanoke River. The Neuse River Basin Association was formed for one specific job and soon became inactive after presenting their problem to the proper Federal Authorities.

Mr. C. O. Butler was secured for a short period to act as contact man for this Division and help organize these groups. He revived the Neuse River Association and organized the Deep River Association. Mr. Butler did a fine job here and was working with the group in the Yadkin River when he left to take a position in Mexico. Unless something is done to keep these associations alive they will soon die. A man of Mr. Butler's calibre is badly needed for this work.

This Division now has a membership in the National Watershed Council. It is felt that much assistance can be gained through this group as it will be possible to keep in close touch with what is going on in other states. The study of what other states are doing can easily keep the local groups from some pitfalls. The National Watershed Council is trying to develop small river basin groups to study and plan the future development of small river basins over the whole United States.

There has long been a need for a report on water resources that will present the problems in a popular form rather than in a theoretical one. The services of Mr. Ben Dixon MacNeill was secured for this purpose. His report on the Neuse River is an excellent piece of work and will be ready for release in the near future.

DRAINAGE

There has been little action in this field. During the period only three requests were made for this Division to certify an engineer. There should be more of this work as there are large portions of swamp land that could be put under cultivation.

This Division should be given the authority to accept or reject plans for any "Drainage District" set up in the State. At present, there is no state organization given authority to pass on the design and as has happened in the past one district may destroy the effectiveness of another. If sufficient personnel were placed in this Division all plans could be reviewed and coordinated with adjoining districts and thus prevent one district from destroying its neighbors.

STREAM SANITATION

The 1951 General Assembly passed a bill giving the State Stream Sanitation Committee regulatory powers for clearing the streams of the State from some of the pollution they are now carrying. The head of this Division was named as one of the ex-officio members of this Committee.

It has been hard to secure the personnel to carry on this work, but at the last meeting a report was given that most of the personnel had been secured. Since much work had already been done in the Yadkin River Basin, the Committee decided to finish this study and start proceedings to clear it. It now looks as though hearings to classify the Yadkin River will start about January 1953. Another trailer laboratory has been borrowed from the U. S. Public Health Service. This should speed up the work. One laboratory is now stationed at Winston-Salem and the other will be located in Concord.

PORTS AND WATERWAYS

For several years there has been some discussion of developing the small ports and waterways of the State. Most of these small ports are not suitable for either tourists' or commercial fishermen's use. Not only are the ports not suitable but several do not have sufficient depth of water to accommodate the vessels in that area. There is no reason why these should not be brought up-to-date and be made serviceable to all, and thus be a help in adding to the income of the people of this area.

Mr. C. O. Butler and Mr. Randy Hamilton attended the meeting of the Sixth Annual Marina Forum in January 1952. While there they met Governor Mennen Williams and Commander Bert Robb of the State of Michigan. During the meeting Governor Williams told Mr. Butler and Mr. Hamilton that because of his great interest in the development of waterways and small harbors, and because of his great respect for Governor Scott, he would be glad to send Commander Robb to North Carolina to help plan the development of the small ports and harbors. Commander Robb is expected to meet with the Water Resources Committee and inspect the ports and then make a report to the Board of Conservation and Development. Michigan has done a wonderful job with their waterways and ports and the Department is fortunate in having the guidance of Commander Robb in this work. He is giving this Department the benefit of several years' experience in this field and also the benefit of several years of mistakes and pitfalls that Michigan made in developing her "marine highways."

DIVISION OF COMMERCIAL FISHERIES

C. D. KIRKPATRICK, *Fisheries Commissioner*



Special attention is called to the progress of our oyster program during the last biennium. The 1947 General Assembly enacted Public Law 1000 for the development of oysters and other bivalve resources. It was realized at that time that unless some program of planting, protection and proper harvesting was initiated the

oyster production of the State would soon be a thing of the past.

It was necessary to locate natural beds suitable for the production of oysters, and to determine methods of seeding and protection. With the aid and cooperation of the Institute of Fisheries Research of the University of North Carolina, these studies and experiments gradually took form; and, as a result, the harvest of oysters for the past season was the finest, in quantity and quality, in the history of the State. Instead of being satisfied with results thus far, the research is continuing and the entire program is being constantly intensified.



Planting Seed Oysters

Information on the catch and value of various seafood products follows:

FOOD FIN FISH

The catch of food fish for this biennium was 41,715,000 pounds with a value to the catcher of \$4,020,150. Spotted and gray trout and flounders were off about 50% from the past biennium, while shad and pompano were about double. There was no very noticeable difference in other food fish caught.

SHRIMP

The production of shrimp was 8,394,426 pounds, with heads off, with a value to the catcher of \$3,357,777. During the last biennium the production was 9,000,000, with heads off, making a decrease of about 600,000 pounds for the biennium.

MENHADEN

The catch of menhaden for the biennium was only 337,497,000 fish, with a value of \$7,000,000. This was only a little more than half what it was during the past biennium. Weather conditions during the height of the operation were largely responsible.

OYSTERS

There were 305,565 bushel tubs of oysters harvested off the public grounds with a value to the oystermen of \$763,912. There were 50,000 bushel tubs more harvested during the last year of this period than the previous year. The quality of the oysters was better and the price was highest in years. The increase in revenue from shell fish just about offset the loss of revenue in food fish.

CLAMS

There were harvested 253,500 bushels of clams at a value to the catcher of \$633,750. This far exceeded the production of clams in any other like period in our history.

ESCALLOPS

There were 58,692 gallons of escallops shucked at a value to the catcher of \$264,114. This was the greatest amount harvested in twenty years, and during this last year more than 45,000 gallons were harvested.

CRABS

There were 23,929 dozens of soft crabs sold at a value of \$23,929 to the catcher. This past year was not as good as the previous year due to the late spring. There were 12,160,000 pounds of hard crabs processed at a value of \$304,000 to the catcher. We had a great supply of hard crabs but the present processors could not handle them.

BOATS

The decision of the Supreme Court of the United States in the case of Toomer vs. Witsell held State Laws regulating fishing in the marginal sea unconstitutional. The PAMLICO, which was purchased primarily for patrol duty in the outside waters and which as a result of this decision was no longer usable in the law enforcement program of the Division of Commercial Fisheries, at the direction of the Board, was sold by the Division of Purchase and Contract.

From part of the proceeds the CAPE LOOKOUT was bought and equipped. The OCRACOE was sold, also, and replaced with the MARS. The HATTERAS was turned over to the U. S. Fish and Wildlife Service because it could no longer serve our purpose. This Federal Agency had let the Division of Commercial Fisheries have this boat some years ago for patrol purposes. Two open skiffs were purchased for working shallow water. The other boats now in commission are the CAPE FEAR, CROATAN, ALBEMARLE, ATLANTIC and NEUSE. All the boats are in good condition except the ALBEMARLE and NEUSE. Both of these need to be replaced.



Menhaden catch is lifted from purse net and loaded into boat

KIND, QUANTITY AND VALUE OF FISH TAKEN IN WATERS OF NORTH CAROLINA

For the period July 1, 1950 to June 30, 1952

Kinds of Fish	Price per pound	No. Pounds	Value
Spotted Trout	40 cents	600,000	\$ 240,000
Gray Trout	15	2,300,000	345,000
Sea Mullet	12	1,000,000	120,000
Blue Fish	20	1,500,000	300,000
Mullet	10	4,000,000	400,000
Croakers	6	2,500,000	150,000
Spots	10	8,000,000	800,000
Hog Fish	5	150,000	7,500
Mackerel	10	300,000	30,000
Shad	25	2,000,000	500,000
Herring	4	15,000,000	600,000
Butters	8	200,000	16,000
Carp	3	1,000,000	30,000
Rock or Striped Bass	20	500,000	100,000
Flounders	20	1,000,000	200,000
Puppy Drum	10	250,000	25,000
White Perch	25	300,000	75,000
Cats	10	500,000	50,000
Eels	5	100,000	5,000
Jacks	3	300,000	9,000
Pike	2	20,000	400
Pompano	25	25,000	6,250
Channel Bass	8	100,000	8,000
Sheep Head	15	20,000	3,000

Total Food Fin Fish

41,715,000 \$ 4,020,150

Menhaden (No. of Fish)

337,497,000 7,000,000

\$11,020,150

SHELLFISH

Oysters	305,565 (bu. tubs) 5 pk.	\$ 763,912
Clams	253,500 (bushels)	633,750
Soft Shell Crabs	23,929 (dozen)	23,929
Escallops	58,692 (gallons)	264,114
Hard Crabs	12,160,000 (pounds)	304,000
Shrimp	8,394,426 (pounds heads off)	3,357,777

Total value of Shellfish \$5,347,482

TOTALS

Value of Fin Fish	\$11,020,150
Value of Shellfish	5,347,482

Total Value Water Products \$16,367,632

REPORT OF DISTRICT SANITARIAN

Mr. C. D. Kirkpatrick
Fisheries Commissioner
North Carolina Department of
Conservation and Development
Morehead City, N. C.

Dear Mr. Kirkpatrick:

I have the pleasure of submitting a brief report of the activities and observations of the office of Shellfish Sanitation of the State Board of Health during the biennium ending June 30, 1952.

The yearly average of certificates issued to approved shellfish dealers were: crab meat, 14; shucking plant, 53; and shellstock dealers, 117. The two district sanitarians assigned to the shellfish sanitation program made 1,622 inspections of these plants. Collected and examined in the shellfish bacteriological laboratory were 288 shellfish samples and 637 water samples. Plans were prepared and furnished gratis for 18 new shellfish plants. Twenty-six plants were enlarged or reequipped.

A complete bacteriological survey was made of Shallotte River showing those waters to be of satisfactory bacterial quality for growing marketable oysters. Resurveys were made of three polluted shellfish areas.

The Shellfish Sanitation Program was again evaluated by the U. S. Public Health Service and twice again received top ratings. With few exceptions the cooperation of our plant operators has been excellent.

The production of cooked crab meat has been average. This type of shellfish venture has proved to be very economically hazardous. The plants are well built and equipped but the low quality of available labor has kept complete compliance with Federal requirements almost impossible. As a result two crab meat plants have ceased operations.

There remains a definite need for improvement in production and marketing techniques throughout this State's seafood industry. The retail market field has been tried only slightly; we are still basically seafood wholesalers.

Future plans of the Sanitation Office include an expansion in activities of the bacteriological laboratory. More frequent examinations can be made of shellfish produced within and imported into North Carolina. Resurveys of all shellfish areas restricted because of pollution are already under way. Study is being given to a revision of existing Sanitary Rules and Regulations to bring them up-to-date and in line with Federal regulations and those of other states.

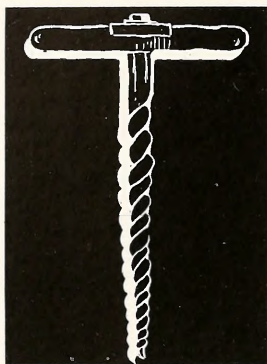
In concluding this brief report, I wish to express appreciation for the cooperation and assistance you and the members of your staff have extended me and my co-workers in the performance of our duties.

Respectfully submitted,

N. McK. CALDWELL
Shellfish Sanitarian
N. C. State Board of Health

DIVISION OF MINERAL RESOURCES

JASPER L. STUCKEY, *State Geologist*



North Carolina contains a wide variety of rocks and minerals which includes both metallic and non-metallic resources with the non-metallic predominating. Non-metallic minerals while important at all times are often of more importance in time of peace and industrial expansion than in time of war. As a result, there has been a steady increase in the amount and value of North Carolina's mineral production during the biennium July 1, 1950 through June 30, 1952. Even the production of sheet mica which declined rapidly at the close of World War II has made important strides during the current biennium due to world conditions and a program of exploration and production sponsored by the United States Government. As a result, the

Division of Mineral Resources has been called upon for information and services far in excess of the facilities which its budget permitted.

The Division of Mineral Resources carries out in North Carolina the functions normally allocated to the Geological Survey of most states. These functions consists of a wide variety of activities which for easy summary may be listed under two main classes: (1) General—in which inquiries are answered, specimens are identified, available information is furnished to interested persons, and services are rendered to the mineral industry; and (2) Systematic Studies—in which detailed investigations are made of specific mineral resources or of specific areas.

GENERAL SERVICES

The general services rendered by the Division include: (1) Replies to inquiries and requests for information on the mineral resources of the State and specific requests for information on the value or availability of specific properties. More than 3000 such letters were answered, many of which lead to investigation in the field and the giving of further advice and assistance; (2) Examination of mineral and rock specimens sent to the office for identification and information. Many such specimens were examined during the biennium and the senders were given information as to the identity and value of the materials submitted. This type of work is considered important and prospectors are encouraged to send in specimens for examination and identification. Through the identification of specimens for the collectors thereof some of our most important mineral deposits have come into production; (3) Field examination of mineral properties at the request of owners. This type of work is done as much as possible as it is an easy way to obtain information and cooperation from citizens of the State; (4) Many copies of the Division's technical publications are sent interested persons. These publications furnish detailed information on specific minerals or mineral areas. There has been a demand for many reports now out of print, and also for reports on many materials that have never been studied. The best means of securing the proper development and utilization of the State's mineral resources is to have specific information available in printed form to furnish interested persons

and industries. The publication of such reports is being pushed as fast as funds will permit. Three or four reports remain unpublished due to a lack of funds.

The Division has cooperated in every way possible with mining companies, individuals and public agencies in furnishing information and advice on problems relating to geology and minerals. Such advice has covered coal, limestone and marl, stone, sand and gravel, clay and shales for use in structural clay products and for production of lightweight aggregate, spodumene, sillimanite, kyanite, pyrophyllite, buff burning clay, graphite and others too numerous to mention here. Attempts have been made to cooperate fully with municipalities, industries, State Departments, institutions and divisions on problems of a geological nature. The Division has also cooperated with State and Federal agencies on problems relating to soils and geology. Both State and Federal agencies have been aided in the location of well sites for securing water supplies. A search for oil was continued during the first three quarters of the biennium. All information available and all aids possible were furnished this program through the Division.

SYSTEMATIC STUDIES

Members of the Division staff carried out systematic studies on a variety of minerals during the biennium. Work was completed on the study of buff burning clays along the eastern edge of the Piedmont Plateau in Richmond, Montgomery, Moore, Harnett, Johnston and Nash counties and a report was completed and published as Information Circular 8, "White Residual Clays of the Volcanic Slate Belt in North Carolina." Some 35 samples of these clays were furnished the Department of Engineering Research at North Carolina State College where they were tested as to their extension and firing qualities. The results of these tests were published as Bulletin 49, "An Investigation of Buff-and-White-Firing Clays of North Carolina," by the Department of Engineering Research, North Carolina State College. As a result of these studies interest is developing in these clays and some production is being made.

A study of a portion of the soapstone-bearing area of Wake County was made and a report completed. A study of the feldspar and mica deposits of Caswell, Vance, Warren, Franklin and Wake counties was completed and a report is being prepared. A study of pyrophyllite, topaz and associated minerals was continued along the eastern part of the Piedmont Plateau in Granville, Durham, Orange, Chatham, Randolph, Alamance, Moore and Montgomery counties. A deposit of some promise has been developed on Bowling Mountain in Granville County and plans are underway for the erection of a modern grinding mill near Stem. Systematic sampling of a number of kyanite deposits was carried out and the samples submitted to the Minerals Research Laboratory, Asheville, North Carolina, for tests. Pyrite deposits in Gaston and Moore counties were examined and samples submitted to the Minerals Research Laboratory for concentration studies.

Cooperation with the United States Geological Survey was continued on ground-water investigations and analyses and on the study of geology and mineral deposits in North Carolina. Bulletin 63, "Geology and Ground Water in the Charlotte Area, North Carolina," was published. The study of the ground water and geology of the Statesville area was completed and a report is being prepared. Special studies were continued on ground water conditions in the Elizabeth City Area. A number of observation wells were regularly checked to determine the effect of precipitation, and withdrawal of ground water, on the water table. A detailed study of the geology and ground water resources of the New Bern-Wilmington Area was started. Work was completed

on the geological mapping and mineral study of the Spruce Pine District. A detailed report will be prepared as rapidly as possible for publication as a Professional Paper of the United States Geological Survey. During the summer of 1950, work was begun on the preparation of a detailed geological map and report on the Hamme Tungsten District of Vance County. This project is continuing through the summer and fall of 1952 by which time field work should be complete. Bulletin 62, "Feldspar Deposits of the Bryson City District, North Carolina," and Bulletin 64, "Pegmatites of the Cashiers and Zirconia Districts, North Carolina" were published.

Cooperation with the Tennessee Valley Authority was continued through June 30, 1951 at which time the Authority discontinued its Regional Mineral Section. During the period of cooperation two reports were completed. One of these covered sillimanite deposits in the Mountains and upper Piedmont Plateau. It was published as Bulletin 61, "Sillimanite Deposits in North Carolina." The other program of work consisted of a detailed study of scrap mica deposits in the Spruce Pine District. A detailed report including several small geological maps has been completed. It would have been sent to the printer during the fiscal year ending June 30, 1952 had funds for its publication been available.

Cooperation was continued with the Minerals Research Laboratory which is operated cooperatively by the North Carolina State College, the Tennessee Valley Authority and the North Carolina Department of Conservation and Development. Several projects of considerable importance including studies on sillimanite, kyanite, kaolin, scrap mica, ground mica and spodumene were carried out. As a result of preliminary studies on the concentration and removal of iron from spodumene, the Foote Mineral Company requested a complete pilot plant investigation of spodumene from Kings Mountain. The

Feldspar mining plant in Western North Carolina



results were so satisfactory that a modern concentrating plant using the information obtained has been put into operation at Kings Mountain. An investigation of the refining of kaolin by use of Humphrey Spirals was so successful that this type of equipment is rapidly replacing more expensive and less efficient equipment in the kaolin industry of the State. During the fiscal year 1951-1952 a project involving the production of mica sheets by bonding ground mica with a suitable reagent was undertaken. It begins to appear that sheets of mica which can be cut into patterns and used in electrical appliances may be successfully made by bonding ground mica. Satisfactory progress was made on the process.

The cooperative project on the study of limestone and marl in eastern North Carolina by the Department of Conservation and Development, the Highway and Public Works Commission and the Department of Agriculture was terminated on June 30, 1951. The study revealed the presence, in the vicinity of Maple Hill, Pender County, of a deposit of high grade limestone of some 30 to 50 million tons. A preliminary report, consisting of a map showing the location of drill holes and a manuscript showing the thickness and quality of limestone in each hole was prepared. The information was so interesting that two cement companies have become interested in the area. One of these—the Volunteer Portland Cement Company—has spent several thousand dollars in further exploration and is still interested in the area.

Some systematic exploration for oil was continued in the State during a part of the biennium. The Coastal Area Development Company completed and abandoned two holes south of Jacksonville in Onslow County in the summer and fall of 1950. During the summer and fall of 1951 the Davidson Oil Development Company drilled two wells in Washington and one in Hyde County. None of these wells produced oil or gas.

Both the United States Geological Survey and the United States Bureau of Mines carried on systematic programs of investigation in the State during all or a part of the biennium. The Geological Survey continued mapping in the Great Smoky Mountain National Park. Work was continued on the study of granites, the Shelby quadrangle in Cleveland County was mapped, a study of kyanite-sillimanite deposits was begun and a reconnaissance of monazite areas in the State was carried out. The Bureau of Mines converted its State College Station into a special minerals station and began a field and laboratory study of monazite in the State.

The following reports were published during the biennium:

Bulletin 61, "Sillimanite Deposits in North Carolina," by Lewis J. Hash and Earl C. Van Horn, 1951.

Bulletin 62, "Feldspar Deposits of the Bryson City District, North Carolina," by Eugene N. Cameron, 1951.

Bulletin 63, "Geology and Ground Water in the Charlotte Area, North Carolina," by Harry E. LeGrand and M. J. Mundorff, 1952.

Bulletin 64, "Pegmatites of the Cashiers and Zirconia Districts, North Carolina," by J. C. Olson, 1952.

Information Circular 8, "White Residual Clays of the Volcanic Slate Belt in North Carolina," by Sam D. Broadhurst, 1950.

RECOMMENDATIONS

As a result of the emphasis placed on minerals during and since World War II, North Carolina has begun a program of expansion and discovery in the field of its mineral resources. It has been known for years that the State

contained important deposits of granite, clays and shales, kaolins, pyrophyllite, feldspar and mica. These have become of increasing value as they have been explored and developed. Along with this program of exploration and development, discoveries of deposits of tungsten ore, spodumene and titanium minerals of Nation-wide importance have been made. It is recommended that a sound program of mineral and geological mapping and study be established and maintained. Such a program should include sufficient funds to make possible:

1. The preparation of a topographic map of the State.
2. The preparation of a reconnaissance geologic map of the State with a complete inventory of mineral resources.
3. The detailed geologic mapping and study of mineral deposits as industrial progress demands.



Tungsten Mine—Vance County

DIVISION OF FORESTRY

FRED H. CLARIDGE, *State Forester*



Greatly increased interest in all phases of forestry has been experienced during the two years covered by this report. Stumpage prices have been uniformly high for all products and there have been unprecedented activities in timber land acquisition for long-time investment purposes. This realization of the great wealth and potential timber growing capacity of the forest land of the State has been reflected in the demand for forestry services and advice from public and private foresters. The increase of the present average growth rate of approximately one-half a cord per acre per year to a cord per acre per year can be obtained if present progress in forest fire control and forest management is maintained.

One of the most significant trends during the biennium was the large turnover in the technical forester personnel of the Division. Fifteen foresters, a majority of whom had several years' experience and were occupying key positions,

have left the State service to enter the industrial or consulting forester field; although this temporarily reduced the effectiveness of the Division, it is considered a healthy sign of general forestry progress in North Carolina.

F. H. Claridge was sworn in as State Forester on January 28, 1952, succeeding W. K. Beichler; and P. A. Griffiths was promoted to Assistant State Forester in Forest Management, the position vacated by Claridge. P. A. Tillman continued as Assistant State Forester in Forest Fire Control.

The great increase in the demand for all types of forest products with the many inquiries for the location of wood-using industries in the State made the re-survey of the unavailable wood supply, growth and drain of utmost importance.

The previous forest survey was started in 1937 and completed in 1938, and many changes in forest conditions have occurred during the interim. An agreement was signed with the U. S. Forest Service on October 8, 1951, whereby the Division would use \$40,000 of unobligated funds and the U. S. Forest Service would complete the re-survey after these State funds were exhausted. The total cost for the entire State was estimated at \$150,000. On December 3, 1951, six foresters were hired by the Division and started work on Unit I of the survey in Southeastern North Carolina. All technical supervision was supplied by the Southeastern Forest Experiment Station, Asheville, N. C.

During 1951 the potentially serious oak wilt disease was discovered in Buncombe and Haywood Counties and during the same year a serious infestation of southern pine beetle occurred in the New Bern area. These two outbreaks, among others, have focussed attention on the need for legislation and some appropriation to combat forest tree diseases and pests.

FOREST MANAGEMENT

The increased emphasis on the Forest Management Program on private and non-Federal lands continues to show excellent results. While the number of board feet marked shows a slight decrease in the last part of the biennium,

the number of individual tracts marked has almost doubled. This indicates that more landowners of North Carolina are receiving and taking advantage of the forest management services offered by the Division of Forestry. The total stumpage value of the products harvested from timber marked by the Forestry Division's foresters was \$1,585,500.

Several outstanding projects were initiated or continued on State and municipal lands. The Caledonia Prison Farm sold 1,327,000 board feet of marked timber for \$44,656. The State Hospital at Butner has employed a forester upon recommendations of the Forestry Division and at present one million feet of timber is being marked, cut, and sold on this area. The City of Lenoir sold 1,684,000 board feet of marked timber for \$23,000.

Since the inauguration of forestry cutting practices by the Forestry Division on State-owned woodlands a relatively short time ago, 17 different agencies have sold marked timber for \$135,000. In addition, 23 different municipalities and counties have followed State practices and have realized \$173,000 from stumpage sales, mostly from their watersheds, which shows a definite interest by the public in the relationship between good watershed management and forestry.



In the woods assistance to landowners by the Division Foresters leads to better cutting practices throughout the State.

PROGRESS IN FOREST MANAGEMENT SERVICE TO LANDOWNERS

	1948-49	1949-50	1950-51	1951-52
No. of Examinations Made	553	934	1,057	1,345
Total Forest Acres Examined	100,971	109,938	266,371	131,536
No. of Tracts Marked	186	362	359	607
Acreage Marked	7,733	10,852	15,125	13,849
Board Feet Marked	19,413,000	28,333,000	38,061,959	35,440,000
Cords Marked	5,460	6,976	12,793	14,428

Cooperation with the Wildlife Resources Commission continues on the Sandhills Wildlife Management Area. The forester, whose forestry activities are directly under the supervision of the Forestry Division, continues with saw timber and pulpwood sales. The forester on this area has been extremely busy in handling timber trespass and boundary disputes. In addition, the extensive Army maneuvers held last summer caused some fires; and damage to timber by tanks was considerable on some areas. All timber and pulpwood sold on this area is marked before cutting and is done under good forestry practices.

FORESTRY CAMP FOR FARM BOYS

The Forestry Camp for Farm Boys was held in August of each year of the biennium. Complete instruction was given in Forestry subjects with some additional courses in Wildlife Management. The success of these Division-operated camps was furthered by the excellent cooperation of the Extension Service and the Wildlife Resources Commission. Funds to run the camp were supplied by the North Carolina Pulp Company, Champion Paper and Fiber Company, International Paper Company, and the Riegel Paper Corporation. The camp group each year is composed entirely of carefully selected 4-H Club and FFA members. The two camps held during the biennium were attended by 159 boys, representing a woodland ownership of 18,933 acres. These boys came from 50 counties in North Carolina.

NAVAL STORES PROJECT

Through the efforts of J. V. Whitfield, a Naval Stores Cooperative has been formed by private citizens which at present consists of thirteen members centering around Southern Pines and Aberdeen. During the first part of the biennium, crude gum sold for \$33 per barrel, delivered to Helena, Georgia. At this price some 41,000 faces were operated.

The last part of the biennium saw the price of crude gum drop to \$25 per barrel. Increased cost of labor, hauling and materials coupled with the low price of gum has at present made the future of this industry uncertain and the cooperative became inactive during the spring of 1952.

As an experiment 6,500 faces are being worked on the Bladen Lakes State Forest as a possible guide for future operations.

WOOD WASTE PROJECT

The increased research activity in the use of wood waste of all types, and the tremendous amount of this material available in North Carolina, made

the study of this economic situation an important consideration. The Divisions of Forestry and Commerce and Industry provided the funds for a study by J. V. Whitfield and Professor Lenthall Wyman, of North Carolina State College, which resulted in an excellent publication entitled "Utilizing Cull Timber Mill Scrap and Waste in North Carolina." Copies of the report are available to those interested.

STATE TREE NURSERIES AND FOREST PLANTING

Seedling production at the two State forest nurseries continued to increase during the biennium. For the planting season 1950-51, 8,369,000 seedlings were produced and distributed. During the planting season of 1951-52, 12,805,750 seedlings were grown and distributed. During the biennium the North Carolina Pulp Company, Champion Paper and Fiber Company, Continental Can Company, International Paper Company, and Gastonia Civitan Club, purchased 4½ million seedlings for free distribution to Future Farmers of America, 4-H Clubs, and selected adults.

The last two seasons have been very successful in the collection of tree seed. This was mainly due to the efforts of the field organizations of the Forestry Division, plus an excellent crop of tree seed. Ninety-three per cent of all the seed used in the State Nurseries has been collected locally by the Forestry Division. This fact is of great importance due to the superiority of locally-collected seed in the growth and survival of the seedlings.

It has been the practice of the Forestry Division for a number of years to make a certain number of plantation inspections each year. An analysis of 540 inspections shows that eighty-nine per cent of the plantations were successful by acreage and seventy-three per cent were successful by number of cooperators.

These reports emphasize the need for greater effort in field instruction and supervision by foresters as most failures reported were attributed to faulty planting techniques. Due to the high postal and express rates an increasing number of seedlings are being shipped from the nurseries by State-owned trucks and distributed with the cooperation of the County Forest Rangers. This has provided the cooperator with planting stock in a fresher condition and has proved more economical, so this method of shipment will be increased in the future.

Mechanical tree planting is on the increase in the State. Due to labor shortages, this type of tree planting will probably become more prevalent in the future. Wayne County has purchased a tree planter for county use, and one pulpwood dealer in Bladen County has a tree planter for loan to private land-owners. Some 15 tree planters are now in operation in the State, two of which belong to the Division of Forestry. It is estimated that some 2½ million seedlings are planted annually by these machines.

CLAYTON NURSERY

Two large buildings have been re-roofed and reconstructed in part. Additional overhead watering system, tile drainage, and additional water storage facilities, are some of the improvements made this biennium. Mature and inferior timber has been sold on the back part of this nursery. Some 300,000 board feet were marked and sold, the State receiving \$5,350 from this marked timber.

This nursery which produces Southern Pine seedlings (Longleaf, Shortleaf, Loblolly, Slash) has now reached its operating capacity. The demand for these seedlings will increase and a new nursery must be obtained if we are to meet future demands.



Shortleaf pine seedlings, State Forestry Nursery, near Clayton, North Carolina

HOLMES NURSERY

An expanded program started the first part of the biennium at this nursery has now been completed. Additional acreage has been brought into seedling production. Overhead watering system, drainage, and general soil improvements have been accomplished. A new 80 foot warehouse and cone-storage building has been completed. This nursery is now capable of producing 5 million seedlings annually.

DISTRIBUTION OF FOREST TREE SEEDLINGS BY SPECIES

Species	1948-49	1949-50	1950-51	1951-52
Black Locust -----	24,200	35,000	17,050	41,900
Black Walnut -----	5,200	4,800	3,450	13,000
Cork Oak -----	440			
Loblolly Pine -----	4,415,795	6,170,800	6,098,500	9,577,840
Longleaf Pine -----	304,750	588,700	349,100	513,650
Red Cedar -----	230,545	337,400	254,630	705,500
Shortleaf Pine -----	283,500	699,200	393,100	295,150
Slash Pine -----	445,395	960,100	162,850	328,100
Yellow Poplar -----	268,450	83,700	194,040	236,350
White Pine -----	472,200	308,400	787,400	1,059,550
Miscellaneous -----	17,785	45,900	28,700	34,270
TOTALS -----	6,468,260	9,234,000	8,288,820	12,805,310

**DISTRIBUTION OF FOREST TREE SEEDLINGS
BY CLASS OF COOPERATORS**

Class of Cooperators	Biennium 1950-52		Cumulative Grand Total	
	No. of Cooperators	No. of Trees	No. of Cooperators	No. of Trees
Farmers -----	4,683	10,296,120	13,432	32,828,557
Industries -----	69	6,798,550	230	19,482,219
Schools -----	47	240,850	452	1,901,389
State -----	48	289,465	158	1,735,164
Clubs and Organizations -----	16	27,100	2,566	448,728
Municipalities -----	12	56,300	35	341,024
Federal Agencies -----	14	812,250	53	7,282,930
Others -----	68	2,573,495	134	4,538,713
TOTALS -----	4,957	21,094,130	17,060	68,558,724

BLADEN LAKES STATE FOREST

During the biennium, three supervisors worked on the Bladen Lakes State Forest. Rufus Page resigned effective July 24, 1951, to accept employment with Turnell and Morgan of Elizabethtown, North Carolina. J. M. Stingley reported to work on November 19, 1951, and was forced to resign because of ill health on March 1, 1952. Graham V. Chamblee accepted the Forest Supervisor's position April 16, 1952. Mr. Chamblee has had considerable experience on the Newport News watershed and is well-qualified for the Forest Supervisor's position.

This forest continues to be the outstanding example of practical forest management in the State. The financial summary indicates the wide variety of activities and the progress made. As of June 30, 1952, some 125 persons were deriving the major part of their livelihood from this area, and 55 persons were living in houses located in the forest. To date \$4,500 has been paid in lieu of taxes to Bladen County from excess receipts.

During the biennium 1,672 acres were burned on this Forest. Most of these fires occurred during the spring of 1951 which was characterized by long periods of hot dry weather.

Reforestation continues with 134,650 seedlings planted during the two-year period. Average costs for planting was \$12.00 per acre including the cost of seedlings. In addition, 208 acres of planted pines were released from scrub oak competition. Some of this material was sold as fuel wood which partly offset the cost of releasing the planted areas.

Some 48,536 Penta-treated pine fence posts and braces secured from thinnings were sold at the wood preservation plant during the biennium. In order to increase production, a pre-heating vat was added to the treating unit. With this addition, two vats of posts can be treated in one 10-12 hour day by one man, as compared to an average of one vat every three days (72 hours) by cold soaking, thus increasing the possible output 600%. One thousand juniper poles were treated for the Parks Division, and 982 posts of various species were custom-treated for individuals.

The timber operation continues in mature, overmature, and diseased timber; the logging being done on widely scattered areas. Logs are cut at a centrally located mill. Lumber is sold on grade to local planing mills, the owners of which submit bids for each 200,000 board feet.

During the biennium the International Paper Company established a barge landing on the Cape Fear River near Elizabethtown. This outlet for pulpwood has enabled us to increase our pulpwood production on the Forest. Natural



Peeling pine posts on Bladen Lakes State Forest. All posts are cut from stands in need of thinning.

and planted stands of considerable acreage are now ready for a pulpwood thinning, and more production of pulpwood will be done in the future.

Deer hunts were held in both years of the biennium, 11 organized hunts being held with a total kill of 20 deer. All deer taken were examined by the Wildlife Commission's Biologist and were free of disease and in excellent condition. The hunts were conducted in groups of 30 hunters each, who supply their own dogs.

The following tabulations show the amounts of different products harvested and an itemization of expenditures and receipts for the biennium. Again, it is to be noted that these Forest operations are entirely self-supporting; no State, Federal, or County appropriation is made for them.

SUMMARY OF EXPENDITURES BLADEN LAKES STATE FOREST July 1, 1950-June 30, 1952

Salaries	\$22,197.55
Labor	79,361.59
Supplies and Materials	11,277.28
Postage, Telephone, Telegrams	790.69
Travel	797.47
Printing	47.89
Motor Vehicle Operation	16,891.51
Light and Power	348.15
Repairs and Alterations	4,355.54
Insurance	550.97
Equipment	11,984.81
Motor Vehicle Exchange	8,364.91
Buildings and Improvements	843.90
Workmen's Compensation	2,245.11
Severance Taxes in Lieu of Taxes	4,500.00

TOTAL EXPENDITURES

\$164,557.37

SUMMARY OF RECEIPTS BLADEN LAKES STATE FOREST

July 1, 1950-June 30, 1952

2,705,483	Board Feet Lumber	\$93,408.07
1,111,526	Board Feet Logs	40,129.90
255,923	Board Feet Stumpage	2,846.85
8,452	Board Feet Veneer Bolts	839.16
1,814	Board Feet Furniture Squares	16.32
6,770.19	Cords Pulpwood	17,790.81
225.06	Cords Oakwood	1,838.81
3.58	Cords Lightwood	19.50
48,536	Penta-treated Pine Posts	19,789.64
16,794	Juniper Posts	4,418.36
575	Poles & Piling	589.98
603	Peeled Pine Posts	120.45
74,600	Tobacco Sticks	108.90
42,950	Shingles	226.75
91.34	Barrels Crude Gum	2,160.88
	Custom Treating	574.11
11	Deer Hunts	1,650.00
	Rentals	43.60
244	Crossties	248.00
	Miscellaneous	649.75
TOTAL RECEIPTS		\$187,469.84
NET BALANCE		\$ 22,912.47

FOREST FIRE CONTROL

During the period covered by this report the forest area protected by the Division has been increased by approximately 535,000 acres. This increase was brought about by the several counties which have come under protection since July 30, 1950.

The Federal Government, under the provision of Section 2 of the Clark-McNary Law, continues its financial cooperation with the State. The amount of funds made available to the State, under the provision of this law, is based largely upon the actual State appropriation for forest fire control. In order to continue to receive the same or larger amounts of Federal funds the State must maintain its relative standing, as far as State appropriations for forest fire control are concerned, among the various other states. During the past two years North Carolina maintained its relative standing as evidenced by the Federal funds shown on the Progress Chart at the end of this section.

Supervisory Personnel

A fairly heavy turn-over in all grades of supervisory personnel continued during the past two years and an even heavier turn-over was experienced in the various classes of temporary jobs. These temporary jobs include seasonal towermen, smoke chasers and fire crewmen. Thus turn-over was due almost entirely to the larger salaries paid by private industry.

The State is still divided into ten forestry districts which, as of June 30, 1952, were located as follows:

D-1 Asheville	D-5 Rocky Mount	D-8 Whiteville
D-2 Lenoir	D-6 Fayetteville	D-9 Sylva
D-3 Rockingham	D-7 Elizabeth City	D-10 Lexington
D-4 New Bern		

Present Organization

As of June 30, 1952, there were 76 counties under protection, each having a full time County Forest Ranger devoting his entire time to forestry work. In addition there were 11 protected counties which were under the supervision of 7 county foresters. These 11 counties having county foresters have a lighter fire control problem than the majority of the counties in the State. By having a county forester, who is required to be a graduate forester, it has been found that the forest fire control program as well as the forest management work can be handled by one man. The actual number of other personnel is shown on the Progress Chart.

County Cooperation

Work has been continued in financial cooperation with the 87 counties under forest fire control with work being based on the county as a unit. The fact that more counties are under protection shows that this form of cooperation has met with widespread support from the various counties and, as these counties appropriated for the 1951-1952 fiscal year \$194,552, it is proof that the counties themselves are taking a keen interest in the forestry program. The Department cooperates with the various counties on a basis of their ability to pay as indicated by each counties taxable wealth. The counties pay from 25 to 40 per cent of the total cost of fire protection within the county. This system was continued for the past two years.

As of June 30, 1952, there were 13 counties in the state still without any form of forest fire protection. These 13 counties represent 1,362,238 acres of privately-owned forest land.

Private Cooperation

Financial cooperation was continued with private forest owners who agree to pay an annual amount used to supplement other available funds to provide more intensified fire protection to their lands. The total amount of these funds is shown in the financial section of the Progress Chart.

Cooperative Projects

During the fiscal year of 1947-1948 a cooperative fire control program was begun with the Tennessee Valley Authority. Special TVA funds to supplement regular fire control funds within the fifteen TVA counties were appropriated in order to make a higher standard of fire protection available. This protection resulted in the per cent of area burned being reduced to less than $\frac{1}{4}$ of 1 per cent. With the close of the 1951-1952 fiscal year this cooperative project came to an end.

Forest Fire Lookout Towers

The Division now operates 122 lookout towers. During the past two years 13 new towers were constructed although 7 of these replaced wooden towers which, due to their age, were no longer safe. In addition to the State-operated towers there are 42 Federally-owned towers which cooperate with the State in reporting fires.

Forestry Division Communication

The Division now owns and operates 300 two-way radios. This number includes tower stations, mobile units on cars and trucks, as well as lightweight portable units. The radio system has been increased by 195 sets during the past two fiscal years.

The Division owns telephone lines amounting to 699 miles. These telephone systems are located in areas in which there are no commercial telephone lines.

Permanent Improvements

A new district warehouse was constructed at Fayetteville replacing a small warehouse which was no longer adequate for the storage and maintenance of the equipment in the Fayetteville District. In addition 5 towermen dwelling houses were constructed at some of the more remote towers. These dwellings made it possible to attract a much more desirable type of employee than had been the case in the past.

Forest Fire Statistics

The forest fire statistics for the past 4 years are shown in the statistical chart. In evaluating these statistics the following factors must be kept in mind:

1. Climatic conditions which are all important in the actual suppression of forest fires. These climatic factors are largely responsible for the

One of the 120 lookout towers operated by the Division as part of its forest fire control and fire prevention program.



increased number of fires during 1949-1950. 1950-1951 and 1951-1952 were more nearly normal as far as weather conditions were concerned.

2. Funds available for fire control must be balanced against the funds required to do the work. During the past two years it was estimated that 11 cents per acre were needed, whereas only 6.7 cents per acre were available.

Conclusion

The goal of State-wide forest fire protection has yet to be accomplished. During the biennium only 5 additional counties came under organized protection. The increased support of the general public, however, has indicated the very real progress made by forest fire prevention and control. This increased support may be measured in part by the larger sums of money appropriated by the various counties and the General Assembly.

FOREST FIRE STATISTICS FOR STATE-PROTECTED AREAS BY FISCAL YEARS

	1948-1949	1949-1950	1950-1951	1951-1952
Area Under Protection—Acres	14,525,262	15,023,097	15,286,957	15,557,382
Number Fires By Size Class:				
A. Under ¼ acre	121	203	144	133
B. ¼ to 10 acres	1,023	1,524	1,424	1,407
C. 11 to 100 acres	911	1,782	1,511	1,384
D. 101 and above	230	547	362	359
Totals	2,285	4,056	3,441	3,283
Causes Of Fires:				
1. Campers and Hunters	181	344	369	225
2. Brush Burning	691	1,171	1,143	1,284
3. Incendiary	468	902	555	570
4. Lightning	29	22	18	40
5. Logging	37	66	82	106
6. Railroads	81	190	85	73
7. Smokers	622	1,048	918	737
8. Miscellaneous	176	311	271	243
Totals	2,285	4,056	3,441	3,283
Area Burned—Acres:				
Forest Land	106,702	421,973	163,537	183,989
Open Land	45,333	39,438	19,992	50,398
Totals	152,035	461,411	183,529	233,387
Damage:				
Forest Land	\$358,430	\$1,456,861	\$586,436	\$634,895
Other	14,820	27,024	69,678	162,801
Totals	\$373,250	\$1,483,885	\$656,114	\$847,696
Average Damage Per Fire	\$ 163	\$ 732	\$ 191	\$ 259
Law Enforcement:				
Number Of Prosecutions	316	478	292	281
Number Of Convictions	289	452	272	259
Number Of Parties Billed				
For F. F. Costs	302	514	528	636

LIST OF PRINCIPAL ITEMS OF FIREFIGHTING EQUIPMENT

Item Of Equipment	On Hand	On Hand
	June 30, 1951	June 30, 1952
Passenger Vehicles -----	36	38
Light Trucks -----	117	133
Heavy Trucks -----	12	14
Truck-trailer Units -----	16	17
Jeeps -----	1	6
Crawler Tractors -----	21	25
Fire Line Plows -----	26	31
Motor Graders -----	2	2
Road Machines -----	2	5
Power Pumps -----	15	10
Two-way Radio Sets -----	105	300



Rangers using Jeep equipped with two-way radio, hand tools and power pump on a fire in Eastern North Carolina.

PROGRESS CHART

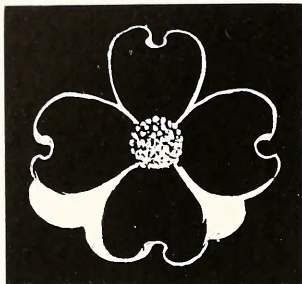
	As Of June 30, 1949	As Of June 30, 1950	As Of June 30, 1951	As Of June 30, 1952
Fire Control Personnel:				
Central Office Supervisors	6	6	6	6
District Foresters	10	10	10	10
Assistant Dist. Foresters	6	6	6	6
District Rangers	11	12	12	13
Radio Technicians	1	2	3	3
County Foresters	0	4	6	8
County Rangers	78	77	77	77
Asst. County Rangers	2	2	2	3
Protective Assoc. Rangers	9	10	10	10
Mechanics	0	0	0	1
Equipment Operators	15	15	16	18
Towermen	4	5	6	6
Finances:				
Appropriation by Counties	\$ 146,881	\$ 165,906	\$ 172,054	\$ 194,552
Appropriation By Private Owners	19,188	19,249	20,680	20,792
Appropriation By State	356,908	462,554	378,125	479,135
Transfer From Preceding Year	—	—	38,606	84,152
Rentals From Employees	—	—	3,259	5,397
Appropriation, Federal Govt.	259,168	245,875	254,126	263,922
Presuppression Fire Lines	8,940	3,112	2,048	5,155
Total Appropriations	\$ 791,085	\$ 896,696	\$ 868,898	\$1,053,105
Available Funds:				
Per Acre Protected	5.4 cents	5.9 cents	5.6 cents	6.7 cents

NOTE: Adequate forest fire control on a State-wide basis can be given all non-Federal land at an estimated cost of approximately 11 cents per acre. This is based on a survey made by the State and Federal Government in 1950.

DIVISION OF STATE PARKS

THOMAS W. MORSE, *Superintendent of State Parks*

THE JOB



The Division of State Parks has *one* basic purpose: **To Serve People.**

Naturally, State parks serve people in certain specific ways and are not "all things to all men." To render the very best service, the field in which State parks serve, therefore, must be clearly defined and clearly kept in mind so that all the work of the Division of State Parks can be concentrated in this field of service.

Briefly, the job of the Division of State Parks is to serve people by:

1. Preserving and protecting scenic and natural areas of State-wide importance, not only for the present generation, but for generations to come. This is *the* most basic function of State parks and should never be lost sight of.

2. Providing opportunities for outdoor recreation in natural surroundings. Recreation that makes use of natural resources in the outdoors is a definite responsibility of any State park system. Opportunities for camping, fishing, boating, swimming, picnicking and similar types of recreation are a major concern of State park systems. State parks should provide facilities and opportunities primarily for recreational use of the great outdoors and should leave the more highly organized and intensive recreational pursuits to municipal and other agencies.

3. Portraying and explaining plant and animal life, geology and all other natural features included in the various areas making up the State park system. In an age when we are faced with ever-dwindling natural resources, this function is very important, because an enlightened public is essential for intelligent use of natural resources.

4. Preserving, protecting and portraying historic and scientific areas of State-wide importance. One of the very important functions of a State park system is the preservation of the physical aspects of our State's history and the interpretation and portrayal of the historical events connected with them. It is always important to thus keep our historical heritage before us because "the past is prologue." Today, faced with bombardment from all sorts of "ologies" and "isms," it is more important than ever for us to keep clearly in mind the things our forefathers stood for.

HOW THE JOB IS BEING DONE

Doing the job requires a variety of professional and trade skills. The knowledges and skills of State park administrators, landscape architects, engineers, architects, biologists, historians, archaeologists, foresters and geologists, together with many others, are all required, and must be used and coordinated.

The work the Division of State Parks does, to do the job assigned to it, is varied and complex. This work is organized into the following nine major divisions:

1. Operation for Public Use.
2. Maintenance.
3. Interpretive and Public Use Programs.
4. Protection and Law Enforcement.
5. Business Management.
6. Information and Education.
7. Personnel Administration.
8. Planning, Developing and Construction.
9. Cooperation with and Service to Other Agencies.

During the biennium July 1, 1950-June 30, 1952, progress and gains were made in each of these major divisions. A report on the progress and gains in each of these divisions follows:

1. OPERATION FOR PUBLIC USE.

Public use of the State parks continues to increase year by year. State parks' attendance during the biennium was 2,439,141 as compared with 1,639,889 during the previous biennium—an increase of 49 per cent.

This increase in public use is the clearest sort of indication of the success and progress of the North Carolina State Parks. More than anything else, it shows the appreciation the people of North Carolina have for their State parks, particularly since these people are park users and not merely park visitors. The young and the old, the well-to-do and the not-so-well-to-do, the city man and the farmer, the professional man and the laborer—all of these use and benefit from the State parks.

The uses made of the State parks during this biennium were many and varied. Youth groups had organized camps in the group camps; other youth groups camped in tents or in the open; individual adults and family groups camped in tents and trailers. Park users used the picnicking facilities of the State parks; enjoyed swimming in lake, pool or ocean; hiked over Mountain, Piedmont or Coastal Plain trails; held sunrise and other religious services in the State parks; fished; boated on placid lakes; spent vacations in the State park cabins; enjoyed and admired historic features and thus increased their knowledge of North Carolina history; took part in nature study programs

Picnickers enjoy facilities of one of North Carolina's State Parks.



and came to appreciate and know the wonders of nature; and drew inspiration and refreshment from contact with the beauties of nature.

There is solid satisfaction in the realization that during this biennium State parks have served so many people in so many ways, and there is inspiration to continually improve and expand the services of State parks.

A brief description of the operation of each State park is given below:

Cape Hatteras State Park: With the revival of activity in establishing the Cape Hatteras National Seashore Recreational Area, State operation of this State park was suspended. During the biennium, the park was neither operated or maintained for public use. Protection was on a volunteer basis by local citizens. The main public use was fishing, chiefly surf casting.

Cliffs of the Neuse State Park: Picnicking, hiking, nature study, rough camping, fishing (in the Neuse River), and sight-seeing were the major public uses of this State park. Attendance increased over the previous biennium.

Crabtree Creek State Park: The major public uses of this State park were camping by youth groups, picnicking, fishing, hiking, nature study and rough camping. The three group camps were heavily used during the summer months by Boy Scout, Girl Scout, Y.M.C.A., Y.W.C.A., 4-H, Church and other youth groups. In all, nine different youth agencies used the camps during the summer months for a total of 32,384 camper days. During the fall and spring months, the camps were used for outings and short-term camping. The Raleigh Sertoma Club conducted a day camp for underprivileged boys each summer.

Fort Macon State Park: This State park was very heavily used during the biennium for picnicking, swimming, fishing, nature study, sight-seeing and visiting Old Fort Macon which drew 222,075 visitors during the biennium. The installation of museum exhibits and provision of better guide service made Fort Macon more interesting and educational than it has been in previous years. The bathhouse was operated during the summers of 1950 and 1951 but was not operated in June 1952 because it was undergoing extensive repairs and alterations.

Hanging Rock State Park: Again this biennium, public use of this State park was greater than the park facilities could accommodate. The bathhouse and beach, parking areas, and picnic areas were all heavily overtaxed. Major public uses at this State park included swimming, boating, fishing, hiking, nature study, rough camping, picknicking and sight-seeing.

Hiwassee Lake State Park: Since it is within 125 miles of Atlanta and less than 100 miles of both Knoxville of Chattanooga, a very large percentage of those using this State park come from Georgia and Tennessee. In fact, over 90 per cent of those who use this State park come from other states. This led the Board to request the Tennessee Valley Authority to accept return of the area and to release the State from its obligation to operate and maintain it. After considerable discussion, TVA agreed to do this effective December 31, 1952. Major public uses of this State park have been vacationing, boating and fishing with some picnicking and rough camping.

James Iredell House: This historic house in Edenton, the home of James Iredell, Justice of the United States Supreme Court, 1790-1799, and Attorney-General of North Carolina during the Revolution, was acquired by the Department by deed dated June 14, 1951, with \$15,000 appropriation provided by the 1951 General Assembly. This historic structure and the plot of land around it has been maintained and operated during the biennium by the James Iredell House Historical Association, Inc., under agreement with the Department.

Jones Lake Recreational Area: This area, operated exclusively for Negro use, grows in popularity each year. Public use for 1951 was double that for 1950 and will probably be even larger in 1952. The area provides facilities for picnicking, swimming, boating, fishing, hiking and rough camping. Usefulness of the area is seriously curtailed by lack of a full-time Negro park ranger assigned exclusively to this area. With present personnel, the area can be actively operated only during June, July and August. There is a definite need to operate the area for a much longer period of time than this.

Morrow Mountain State Park: This State park continued to be heavily used during the biennium. Major public uses include picnicking, swimming, fishing, hiking, nature study and camping. The restaurant and the recreation room in the lodge also were operated for public use. In June 1952, six vacation cabins were opened for public use and thus made vacation facilities available for the first time at this State park.

Mount Mitchell State Park: The opening of a section of the Blue Ridge Parkway between Mount Mitchell State Park and Asheville made the distance between the park and Asheville only 30 miles. This easy accessibility to the highest peak east of the Mississippi River caused attendance at Mount Mitchell State Park during this biennium to increase $2\frac{1}{2}$ times over attendance for the previous biennium. This increase in public use far outstripped available facilities of all kinds, but particularly parking and sanitary facilities. On many days cars were lined up for long distances, sometimes for more than a mile, waiting for parking space. This inadequacy of facilities, of course, makes operation very unsatisfactory and can be corrected only by enlarging facilities. Lack of adequate facilities has been severely criticized. Heavy public use was made of facilities for picnicking, camping, and sight-seeing. Hiking and nature study were the other public uses.

Pettigrew State Park: With progress on physical research (excavation) and restoration, public interest in the historic Somerset Plantation materially in-

Hiking in a State Park in Western North Carolina



creased and visitation to see the existing old buildings and the excavation work increased correspondingly. Lake Phelps, containing 16,600 acres, continued to be much used for fishing. The Department entered into an agreement with farmers and local residents around Lake Phelps to hold the water in the lake at a low level (8 ft.). The outflow elevation of flood gates, therefore, was set at this level and the lake has been held there since early in the biennium.

Reedy Creek State Park: On April 24, 1950, 1,234 acres of Crabtree Creek State Park, lying south of Crabtree Creek, were set up as a separate state park for Negroes and designated as Reedy Creek State Park. This area had previously been operated for Negro use as a section of Crabtree Creek State Park. Major public uses have been organized camping by youth agencies, hiking, nature study and picnicking in a new picnic area completed early in the biennium and including a large shelter, toilets, tables and benches, and outdoor fireplaces.

Rendezvous Mountain State Park: The main importance of this area as a State park is as an historic site. It was not actively operated by the Division of State Parks during the biennium but the Division of Forestry maintained and operated a lookout tower and towerman's residence on the area.

Singletary Lake Group Camp: In this, as in previous bienniums, this area was used primarily for organized camping by youth agencies. Ten different youth groups used the group camp for a total of 10,877 camper days. Other public uses included fishing and boating.

Town Creek Indian Mound: This area is operated entirely as an historic site. It attracted a steadily increasing number of visitors who came to see the archaeological excavation work underway, the restored Indian Mound and Stockade, and to learn how Indians lived before the white man came to America. A small temporary field museum was operated for the public.

Tryon Palace: The purchase of land for the Tryon Palace project was completed during this biennium. Thus, the first major step in the restoration of the first Capitol of North Carolina was completed. In all, 16 tracts were purchased with State funds, including the existing wing of the Palace, at a cost of \$206,458.

On October 16, 1951, Perry, Shaw and Hepburn, Kehoe and Dean were employed as architects for the restoration. The architects have established a project office at the site; physical research has been begun on the wing and the surrounding ground area; and documentary research is actively under way. This work, in fact the entire restoration project, is possible through the generous gift of more than \$1,250,000 by the late Mrs. Maude Moore Latham. The restoration project is the joint responsibility of the Department and the Tryon Palace Commission.

State Lakes: The Division of State Parks is also charged with the administration for public use of seven State-owned lakes. Four—Jones Lake, Salters Lake, Singletary Lake and Lake Phelps—are within the boundaries of State parks and are administered under State park rules, regulations and policies. Black Lake, being adjacent to Bladen Lakes State Forest, is similarly handled.

The Department owns no land around White Lake in Bladen County and Lake Waccamaw in Columbus County, and the jurisdiction of the Department extends only to the high water marks of these lakes. Administration of these lakes has been successfully carried on during the biennium. The only major problem has been at Lake Waccamaw in connection with holes dredged in the lake several years ago by a private development company. Strenuous

efforts have been made to get this company to carry out its promise to fill in these holes, and it now appears that this will be done during the summer of 1952. Filling in these holes will eliminate a serious hazard.

2. MAINTENANCE.

Maintenance is a continuous process. Day in and day out, maintenance work has to be done to keep the State parks, and the facilities in them, in good usable condition and to protect the health and safety of park users. Maintenance of the State parks and the millions of dollars worth of improvements in them is a large undertaking. Dozens of water systems and sewer systems; hundreds of miles of roads, truck trails, and foot trails; hundreds of buildings; miles of telephone and power lines and many other items must be maintained.

Progress has been made in all this maintenance work and, within the limits of funds available, maintenance and repairs have been done on buildings, roads, parking areas, water systems, sewer systems, trails, signs, grounds and many other things. As a result, the State parks for the most part are in a fair state of maintenance. However, the Division has not had the funds required to maintain them in tip-top condition. Consequently, unfinished maintenance work accumulates from year to year and there is a growing back-log of undone maintenance. Only with a large appropriation can this back-log be overcome.

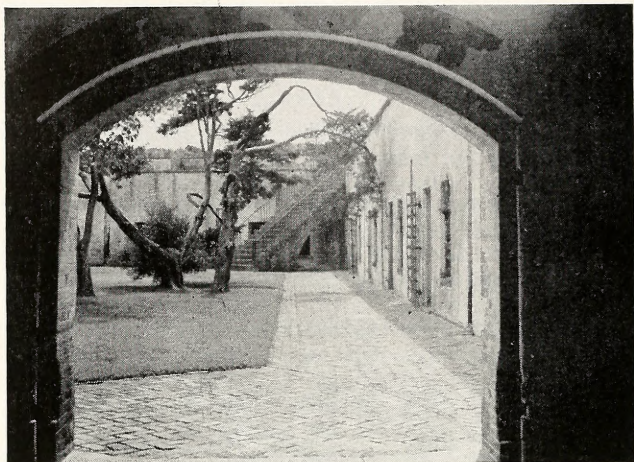
3. INTERPRETIVE AND PUBLIC USE PROGRAMS.

More has been done in this long neglected phase of the Division's work during this biennium than in any previous two-year period. In four State parks, naturalists were on duty during the summer months and conducted good nature study programs. Many park users were conducted on nature hikes and took part in nature study programs. It is impossible, however, to carry on an effective program of this sort if activity is confined to three months in the year. The program should be carried on over the entire year, especially if school children are to be given a good appreciation and understanding of the conservation of natural resources. This could be done with additional personnel.

More historical and archaeological research, excavation and restoration was done during the biennium than has ever been done before. Most of this work has been done at three State parks and was made possible by appropriations provided by the 1947 and 1949 General Assemblies.

At **Fort Macon State Park**, on March 10, 1952, a qualified historical researcher, who had previous experience at Colonial Williamsburg, began the research and restoration work required for a first-class historical interpretive program at Old Fort Macon. Extensive research has been done in public and private records to get detailed and authentic information on the construction, military and civil history of the Fort and on its interior treatment and furnishings while it was used by the Confederate States of America. Fixtures have been installed and other work has been done to enlarge the museum and graphically portray the history of the Fort. All of the work will be continued and the result will be a very fine interpretive program at the Fort.

At **Pettigrew State Park**, a qualified historical researcher has been doing documentary and physical research since October 1, 1951. So far, a good deal of information has been obtained on the history of Somerset Plantation and the Collins family. A considerable amount of archaeological excavation has been done and has revealed sites of original buildings, walks, drives, gardens, etc. Restoration work has included bringing the area around the Collins house to its original grade and partial restoration of the main driveway.



Old Fort Macon

At **Town Creek Indian Mound**, a well trained archaeologist has been working throughout the biennium on research, excavation and restoration. The mound has been completely restored and the stockade almost entirely restored. Other minor restoration work has been done. The results are very satisfactory and the work is making the area the most interesting and educational ancient Indian site in the State. In addition to this work, the archaeologist carries on an interpretive program including guided tours, lectures and exhibits in a small temporary museum.

4. PROTECTION AND LAW ENFORCEMENT.

Protection and law enforcement is the three-fold task of protecting the State parks from fire, vandalism and trespass; protecting the wildlife in the State parks from hunting, trapping, etc. (all State parks are wildlife sanctuaries); and preserving law and order in the State parks. Although little is usually said about this phase of the Division's work, it is one of the most important activities of the Division and inattention to it would be quickly apparent.

This work has been very successfully accomplished during this biennium. State parks use has been wholesome and orderly and the State parks have been well protected.

This phase of work increases in volume and grows more difficult with each year's increase in State park attendance. Consequently, the Division cannot continue to do a good job of protection and law enforcement unless the number of employees is increased. With additional personnel, a much better job could be done in this phase of the Division's activities and protection and law enforcement work could be closely tied in with conservation education and good outdoor manners. This is sorely needed. Vandalism in the State parks has increased tremendously since World War II.

5. BUSINESS MANAGEMENT.

Business management of the Division of State Parks is similar to business management in private business. It involves purchasing, accounting for

expenditures and receipts, keeping fiscal records of various kinds, property accounting and inventory records, equipment operation records, payrolls, work records, cost records and many other items of work. This detail work is just as essential to the successful accomplishment of the over-all job of the Division as it is to the successful management of a private business.

The success of the business management of State parks is partially measured by the receipts earned by the Division of State Parks. During the biennium July 1, 1950 - June 30, 1952, receipts from the operation of State park facilities (exclusive of Federal and State taxes) amounted to \$174,862.13, as compared to \$86,987.32 for the previous biennium—an increase of 101 per cent.

As with other phases of State park work, business management of the State parks has increased in volume and has become more complicated during the biennium. After all, an activity that averages some 1¼ million customers a year is quite a large business involving a great deal of purchasing, accounting, record keeping and other business activities. Considering the inadequacy of personnel, the business management of the State parks has been satisfactorily carried on; but it is not at the pitch of efficiency it would be if the Division of State Parks were adequately staffed.

6. INFORMATION AND EDUCATION.

This has been the most neglected part of the Division's job. The present small staff just cannot squeeze enough time out of its crowded schedule to do the things that cry for attention in the field of information and education.

Printed illustrated information on the State parks is the most pressing need but the Division has neither the personnel nor the funds for this. As a result, it is impossible to fill speedily, accurately and completely the thousands of requests received for information on the North Carolina State Parks and the facilities in them.

Another pressing need that cannot be met is for photographs of scenes and activities in the State parks. All sorts of newspapers, magazines and other publications constantly request photographs to illustrate material being published about the State parks. The Division cannot fill these requests nor can it supply photographs for its own use.

Even with these handicaps, however, the Division has made a fair amount of information on State parks available to the public through correspondence, newspaper articles, talks to groups and organizations and in other ways. Division employees have also appeared on radio and television programs.

Some work has been done on educational activities but not nearly as much as should have been. Educational activities have included cooperation with and assistance to East Carolina College in conducting at Crabtree Creek State Park a two-week seminar for its physical education majors and a two-week training camp in outdoor education for school teachers. Other educational work has included conducted tours for school children at parks having historic features, assistance to school and college students in preparing theses, and talks to school children.

7. PERSONNEL ADMINISTRATION.

The effectiveness with which the Division of State Parks does the job assigned to it depends to a very large extent upon the number and quality of its employees.

Planning, building, administering, operating and maintaining a system of state parks is work that requires trained, efficient personnel, experienced in

their various positions and all working together to do a first-class job. To get such an organization, as any well-run private organization knows, there must be adequate wages for work and duties required, incentive for advancement, opportunity for advancement, reward for top-level job performance and reasonable permanence.

Until September 1, 1951, most of these factors were lacking as far as Division employees were concerned and the Division was plagued with serious personnel problems. Personnel turnover was rapid, more than half of the positions assigned to the Division were vacant for varying lengths of time; and approximately 12,000 man hours were lost because of these vacancies. The work of the Division was seriously crippled and delayed.

This situation was materially improved on September 1, 1951 as a result of months of cooperative work by the State Personnel Department and the Department of Conservation and Development. The State Personnel Department, working closely with the Division of State Parks, had by that date classified every permanent State park position and established specific job specifications and salary ranges for each position. The excellent work done on this by the State Personnel Department, together with the definite system of automatic and merit increases established by it, have made it possible to materially improve the calibre of personnel. The job specifications and salary scales are such that now, for the first time, it is possible to secure employees on a career basis and to begin a definite system of promoting employees to higher positions as vacancies occur within the Division.

Salary scales, however, have not kept pace with increases in the cost of living; and we are again being faced with employee turnover, difficulty in filling vacant positions and other personnel problems because of the gap between salary scales and cost of living. A substantial increase in salary scales is essential to maintaining a force of trained, efficient and competent employees.

The Division has made good progress in improving the quality of its employees during this biennium. This has been done through (a) careful selection of new employees and (b) in-service training.

A definite four-phase program of in-service training was inaugurated during this biennium consisting of (a) on-the-job training, (b) semi-annual superintendents' meetings, (c) short courses, and (d) self-study. On-the-job training is a continuous process covering various phases of each employee's work. The semi-annual superintendents' meetings are lecture and discussion meetings keyed to both current and long-range problems. The short courses are held at North Carolina State College each winter and cover basic subjects. Each employee is urged to carry out a program of home-study on his own time of subjects he needs to be proficient in to efficiently execute his duties. This four-phase program has and will continue to increase employee efficiency and know-how.

Appreciation is due the employees of the Division of State Parks, both at the various State parks and in the central office, for their hard work and the sincere devotion they have given to serving the public. Most of them worked long hours of overtime in effectively discharging the many duties connected with state park development, operation, maintenance and administration.

8. PLANNING, DEVELOPMENT AND CONSTRUCTION.

A. Permanent Improvements.

Good progress has been made during the biennium in carrying out the development program made possible by the State park permanent improve-

ment appropriations of \$500,000 provided by the 1947 General Assembly and \$1,074,144 provided by the 1949 General Assembly. In all, these appropriations include 118 different projects. As of June 30, 1952, 89 of these projects were completed or under construction. Of the remaining 29 projects, 10 will be under construction by October 1, 1952, and the remainder during the following three months. Picnic areas, parking areas, park roads, water systems, sewer systems, power lines, telephone lines, maintenance and service centers, boat docks, swimming piers, vacation cabins, and many other new facilities have been added to the State parks and more will be added through these two permanent improvement appropriations. Permanent improvement work was carried on at ten different State parks.

Most of the projects are being built by the Division under force account. Because of the isolation of the parks and the scattered nature of the work, force account is more feasible and less expensive for most projects than contract work. The larger projects, such as park community buildings, swimming pools and dams, are to be built under contract.

B. Planning.

Most of the planning and designing for the permanent improvement work has been done by the technical staff of the Division. Plans for a few of the major projects have been prepared by private architectural or engineering firms.

Because State park planning is a long range process involving many professions, particularly landscape architecture, engineering and architecture, coordination of all phases of planning and design is absolutely necessary to achieve best results. Then, too, such planning is highly specialized and requires close contact with and knowledge of actual operating and maintenance problems. For these reasons, best results in planning for State parks can be secured by providing the Division of State Parks with an adequate technical staff including landscape architects, engineers and architects.

Lack of advance planning has always been a serious handicap to improving the state park system. Time and money is saved, and far better results are achieved if complete and detailed plans and specifications are prepared well in advance of actual construction. The Division has never had a sufficiently large technical staff to do this advance planning. Such a staff should be provided within the Division.

C. Acquisition of New Areas and Additions to Existing Areas.

During the biennium, the following new areas were acquired:

Governor Aycock Birthplace: A 1.96 acre tract on Governor Aycock's home-place in Wayne County was acquired by the Department by deed dated May 26, 1951. On this tract, the house in which Governor Aycock was born will be re-erected.

James Iredell House: The home of James Iredell in Edenton was acquired by deed dated June 14, 1951. Purchase was made with funds appropriated by the General Assembly of 1951.

Tryon Palace: Acquisition of most of the land required for the restoration of Tryon Palace was completed during the biennium.

During the biennium, additional land was added to the following State parks:

Town Creek Indian Mound: Two tracts, one of 36.6 acres and the other of 14.9 acres, were purchased with permanent improvement funds during the biennium. The addition of these 51.5 acres completes land acquisition for this area for some time to come.

Pettigrew State Park: One tract of 14.9 acres and another of 10.7 acres were purchased with permanent improvement funds. These 25.6 acres are in the vicinity of the Collins house and are a part of additional land required for this park.

D. Investigation of Proposed Areas.

During the biennium, a number of areas were suggested for inclusion in the State park system. Every area suggested was carefully investigated for its suitability for State park purposes. With two exceptions, none of these suggested areas were found suitable for State park purposes.

The Long Beach area in Brunswick County was one of the exceptions. For financial and other reasons, it was not possible to acquire this area.

An area on Lake Waccamaw in Columbus County was the other exception. Unfortunately, the particular area suggested proved too small for State park development. Because State-owned Lake Waccamaw is such an important recreation resource, the search for a suitable area on its shores is being continued. Every effort should be made to secure a tract of land large enough for State park purposes on the shores of Lake Waccamaw.

9. COOPERATION WITH AND SERVICES TO OTHER AGENCIES.

Besides direct services to users of the parks, the Division of State Parks renders certain services to other agencies. These services are rendered to municipalities, counties, religious and other organizations and include examination of proposed recreational areas, consultation services and supplying standard plans for various recreational facilities. During the biennium, such services have been rendered to a number of municipal and other agencies.

LEGISLATION

The only important legislation affecting State parks passed by the 1951 General Assembly was an amendment to General Statutes, Chapter 66-58 to provide that the Department of Conservation and Development "shall not construct, maintain, operate or lease a hotel or tourist inn in any park over which it has jurisdiction."

PROPOSED NEW FEDERAL AREAS

Cape Hatteras National Seashore Recreational Area.

The Cape Hatteras National Seashore Recreational Area is much nearer reality today than it ever has been before.

On June 11, 1952, the Director of the National Park Service made a personal visit to Raleigh to announce to the Governor and the Director of the Department of Conservation and Development that a private donor would match dollar for dollar any funds that the State would provide for land acquisition for the Cape Hatteras National Seashore Recreational Area. The Governor called a meeting of the Council of State on June 19 to recommend the allocation of \$500,000 from the Contingency and Emergency Fund for this purpose. Congressman Bonner and Director Ross presented the case. After some discussion, the Attorney General ruled that the request for allocation should come from the North Carolina Cape Hatteras Seashore Commission. The Commission met on June 21 and voted to request the \$500,000 allotment from the Contingency and Emergency Fund. The Council of State met on June 23 and granted the allotment.

This allotment, plus \$68,000 now in the Commission's budget, plus \$50,000 in

the Cape Hatteras State Park Permanent Improvement Budget, makes a total of \$618,000 in State funds. This will be matched by the private donor, so \$1,236,000 is available to purchase land for the Cape Hatteras National Seashore Recreational Area.

John H. Kerr Dam Project (Buggs Island).

Several conferences on the development of this project have been held with the Buggs Island Development Commission, and representatives of the Department attended a meeting on June 30 at Castle Heights, Virginia, called by the Norfolk District Army Engineers' office to discuss plans for use of the Federally-owned land around the reservoir. At this meeting, the Chairman of the Buggs Island Development Commission requested for the State approximately 4,500 acres of land on the arm of the lake nearest Henderson. One of the most urgent needs of the project is for land zoning. If the lake is to be of most benefit to the public, the land around it must be carefully zoned.

RECOMMENDATIONS FOR FURTHER PROGRESS

A. PROVIDE THE INCREASED STATE PARK BUDGETS NEEDED TO IMPROVE OPERATIONS, PUBLIC USE PROGRAMS, AND MAINTENANCE AT EXISTING STATE PARKS.

State park budgets and State park personnel are now and have always been insufficient to adequately operate and maintain the existing State parks. Public use increases at a greater rate than budgets and personnel. Much more emphasis should be placed on programs to provide for public use of the natural features of the parks. Only by providing adequate funds and personnel can these improvements be brought about.

B. PROVIDE FUNDS NECESSARY TO COMPLETE DEVELOPMENT AND LAND PURCHASE AT EXISTING STATE PARKS.

Not one of the existing State parks is adequately developed. Many additional facilities are very much needed to meet public demand and to carry out the basic purpose and objectives of the state park program. More organized group camps for youth agencies such as 4-H Clubs, church groups, Girl Scouts and Boy Scouts are needed. Requests for vacation cabins far outstrip present accommodation. In many parks, sanitary facilities, roads and parking areas are inadequate. In some State parks, exterior and interior holdings of land should be acquired.

C. PROVIDE ADDITIONAL TECHNICAL PERSONNEL FOR COMPREHENSIVE ADVANCE PLANNING OF THE STATE PARK SYSTEM.

An adequate staff of competent technical personnel should be employed to prepare detailed plans for improvement of the State park system well in advance of actual construction. Such advance planning always saves time and money.

D. CONTINUE TO RAISE STATE PARK PERSONNEL STANDARDS.

In-service training should be increased and every advantage should be taken of short-courses and other training opportunities to increase the knowledge and ability of State park personnel. The work of the Personnel Department in preparing job descriptions, setting salary scales and evaluating performance should be continued and revised as the State park program grows in scope and complexity. All new employees should be carefully selected on the basis of their training, experience and ability to competently discharge the duties required of them.

E. PROVIDE A LAND PURCHASE FUND FOR THE ACQUISITION OF NEW STATE PARKS.

Only by carrying out a planned land purchase program can the State park system be expanded to serve all the people of North Carolina. Dependence on gifts of land for State park purposes is entirely unsatisfactory and an excellent State park system will never be developed in that way.

F. PROVIDE FUNDS FOR BUILDING PUBLIC USE FACILITIES ON NEW STATE PARKS.

Once they are acquired, roads, parking areas, sanitary facilities and a number of public use facilities will be needed in new State parks.

In carrying out these recommendations, the policies, procedures and recommendations in the Board-approved **Park, Parkway and Recreational Area Study of North Carolina (1940)**, should be followed closely. These policies, procedures and recommendations were evolved only after long and careful study by persons experienced in the work and form a sound plan for the North Carolina State Park System.

Girl Scout Camp Fire Circle



[illegible]

LEGEND:

- Facilities available prior to 1947 and 1949 Permanent Improvement Funds ... ● ▲ ◆
- Additions to available facilities authorized with 1947 and 1949 Permanent Improvement Funds ●● ▲▲ ◆◆
- New project authorized with 1947 and 1949 Permanent Improvement Funds ◆

CHART "B" — STATE PARKS ATTENDANCE RECORD

STATE PARK	TOTAL ATTENDANCE			PICNICKERS		CAMPERS		VISITORS		SWIMMERS		HIKERS		CABINS		FISHING	
	FY 1951	FY 1952		FY 1951	FY 1952	FY 1951	FY 1952	FY 1951	FY 1952	FY 1951	FY 1952	FY 1951	FY 1952	FY 1951	FY 1952	FY 1951	FY 1952
Cape Hatteras.....	Figures not available																
Cliffs of the Neuse.....	65,144	69,209		20,769	15,588	140	568					729	1,373				
Crabtree Creek.....	71,653	67,212		30,812	37,731	18,837	16,985					16,984	4,282			70	70
Fort Macon.....	245,181	350,725		22,242	30,552			92,528	129,547	41,131	68,529					22,459	30,565
Hanging Rock.....	144,909	178,653		58,008	58,036	943	1,086			27,471	42,471	18,101	17,306			492	580
Hiwassee Lake.....	73,857	41,607		6,059	15,139									5,136	6,866	10,713	15,936
James Iredell House.....	Figures not available																
Jones Lake.....	17,048	22,626		9,970	13,670												364
Morrow Mountain.....	319,333	279,698		82,145	58,305	2,305	1,433			3,990	6,372					345	364
Mount Mitchell.....	193,814	233,998		31,422	55,987	530	1,130			13,389	21,062	11,992	8,934		24	15,555	11,249
Pettigrew.....	10,649	8,979		111	897							181	(4)			990	(4)
(2) Reedy Creek.....	3,880	22,254		(4)	4,090	1,960	2,853										
Rendezvous Mountain.....	Figures not available																
Singletary Lake.....	5,693	6,814				4,746	5,731										
(3) Town Creek.....		6,205					30										
Tryon Palace.....	Figures not available																
Totals.....	1,151,161	1,287,980		261,538	289,995	29,461	29,816	92,528	129,547	85,701	138,434	47,987	31,895	5,136	6,890	50,624	58,848

(1) Includes group camp users.

(2) Attendance records not started until June 1, 1951.

(3) Attendance records not started until March 24, 1952.

(4) No Report.

DIVISION OF COMMERCE AND INDUSTRY

PAUL KELLY, *Industrial Development Administrator*



Latest available figures show that the preponderance of North Carolina's manufacturing falls in two general classifications—textiles and tobacco. The combined total of sales in these two categories in 1951 comprised approximately 65 per cent or roughly two-thirds of the industrial product of the State.

Total employment in the two classifications of manufacturing amounted to 61 per cent of the grand total. Of total sales value of manufactured products amounting to \$6,181,000,000, in 1951, textiles and tobacco accounted for \$3,972,000,000. The number of workers in the two fields totaled 258,000 out of the grand total of 425,000 employed in manufacturing establishments.

These figures illustrate the fact that greater diversification is needed in the industrial foundation of North Carolina to secure a better balance in its economy. They have exercised an important influence on the program of the Division of Commerce and Industry during the two-year period covered by this report. While the Division has sought development in every field of industry, it has devoted particular attention toward the attraction of manufacturing plants in diversified categories.

That important progress is being made toward industrial diversification is shown by a comparison with earlier census of manufactures figures. For example, in 1939, the combined value of textile and tobacco products was 77 per cent of the whole and employment totaled 73 per cent. It is noted that the percentages of the two lines of industry to the whole has dropped from approximately three-fourths in a period of 12 years to less than two-thirds.

The forest products group, including lumber, paper and allied products, and furniture, are third in order in sales value of products. Their total constitutes some 13 per cent of the total of sales value, amounting to \$788,000,000. However, although most of the furniture produced in North Carolina is of the wood variety, a small percentage is metal, and this would alter the picture somewhat. Taken separately, these industries rank as follows in total sales value of manufactured products as compared with others: lumber, fifth; paper and allied products, sixth; and furniture, seventh.

Progress in industrial diversification, according to various indications, has been more rapid than is apparent in latest census figures. During the past two years, the rate of industrial growth of North Carolina has been tremendous. Considerable time is required between the period of announcement and the beginning of operation; and, to be included in the record, operation must cover a period of one year before being included in the census of manufactures. Furthermore, because of the National emergency, construction of a considerable number of the proposed new plants has been postponed. For the above reasons, the full story of industrial progress and its effect on the general economy will not be recorded for several years.

In evaluating the industrial progress of North Carolina, it is apparent that the character and type of operation is almost as important as the volume. Other factors equally as important as the number of new plants and investment are the total new job opportunities created and the scale of pay.

The diversification trend has been particularly in evidence in such categories as electrical machinery and equipment, metal products, and chemicals. Among the varied products of new plants now in operation or scheduled to begin manufacture within the next several months are watt meters, synthetic fibers, tools and arms, electronic devices, electric blankets, radio cabinets, wood pulp, hypodermic needles, boilers, metal tanks, steel tubing, soap, apparel and numerous others.

Considerable diversification also has been accomplished within the textile field, which has long been dominant as a source of industrial employment and value of products in the State. Most noticeable has been growth in the woolen and worsted branches of the industry and also in the weaving of synthetics and in dyeing and finishing.

A study recently made by this Division showed that the industry with the fastest rate of growth during the 1949-51 period was chemicals, with value of sales increasing by 820 per cent. Significant percentage gains were registered in the following fields: rubber products, 105 per cent; stone and clay products, 96; electrical machinery, 86; machinery, 70; and food products, 63. During the same period, tobacco products sales increased 53 per cent and textiles 41.

The National Defense Program has exercised a profound influence over industrial development during the 24-month period covered by this report. Through a series of controls and restrictions, construction not essential to the program or civilian economy has been restricted and that part which met these qualifications has had priorities. As a consequence, most of the new plants have been of a nature that would contribute to the Defense effort. Development in other categories has been curtailed. However, almost without exception, the new plants which have located in the State during the last few years are of a permanent nature.

The peak of capital spending for mobilization is said to have been passed in 1952. Although the rate will be retarded in the future, a recent survey by the McGraw-Hill Publishing Company forecasts during the next three years that investments in new manufacturing facilities will remain at a high level. Although mobilization requirements, barring an all-out conflict, will be less, there will be considerable replacement and modernization. Decentralization is expected to continue as a factor in plant location.

INDUSTRIAL DEVELOPMENT ACTIVITIES

Although the Division has a wide variety of functions, the primary activity continues to be industrial development. The years since the close of World War II, more particularly since the beginning of the Korean conflict, have witnessed probably the greatest expansion in the history of the Country.

North Carolina, during this period, has experienced unprecedented growth in industry. Although facilities for a complete record of progress are not available, the Division has maintained a file system which gives a general idea of what is happening in the industrial life of the State.

Cognizant of the fact that the State shared only to a small extent from the expansion of productive capacity of the Nation during World War II, the Division directed every effort toward changing this situation during the current emergency. The number of war plants established in World War II was limited to probably not more than a dozen. Development in the State consisted largely of facilities for training the Armed Forces, many being abandoned with demobilization. On the other hand, war plants throughout the Country, as a rule, were sold to private business and were reactivated for civilian production.

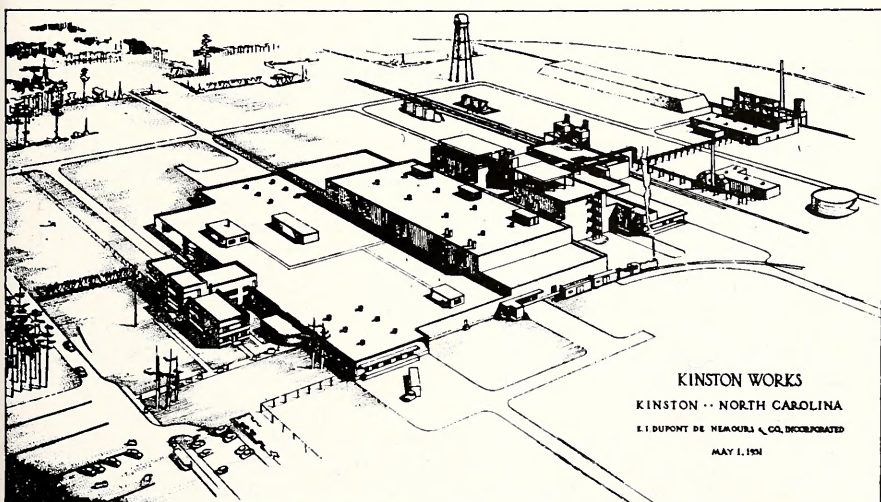
During the current emergency, the Division has waged a consistent campaign for new manufacturing facilities which would contribute to mobilization and essential civilian needs, and at the same time bring diversification. It is pleasing to note that a great deal has been accomplished toward such an objective.

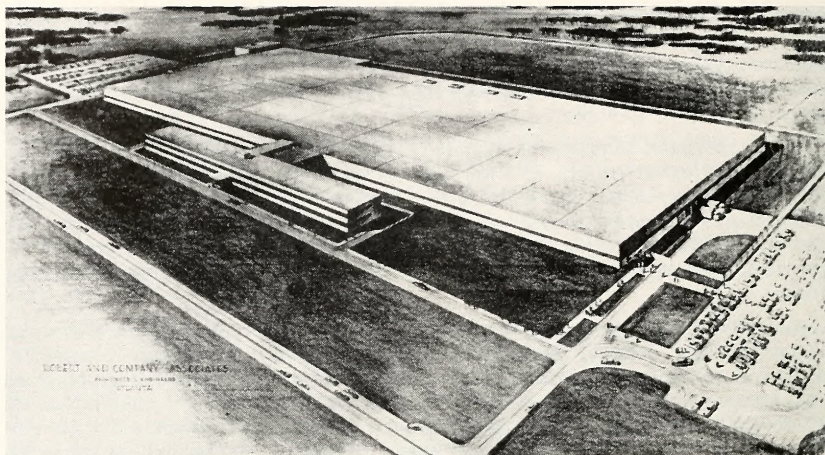
While servicing industry of any description searching for a plant location, the primary efforts of the Division toward initiating new prospects has been in fields which would contribute to the industrial diversification of the State. Individual mail presentations of the State's advantages for industry have been placed in the hands of most of the firms having the largest Government contracts. Personal contacts have been made with a considerable number of these.

New Plants: During the 24 months covered by this report, Division records show 198 new announced projects, some of which have been completed, others being under construction, and others being scheduled for erection in the future. These will represent an estimated investment of approximately \$205,000,000 with potential employment of some 31,000 workers. Prospective new annual payrolls will amount to approximately \$77 million dollars annually.

As has been pointed out previously there has been the widest diversification of processes and products ever achieved in a similar time. Some of the new projects and their products are E. I. Du Pont de Nemours Co., Kinston, Dacron; Union Carbide and Carbon Co., Spray, Dynel; Oerlikon Tool and Arms Co., Asheville, arms, machines, and machine tools; Westinghouse Electric Corp., Raleigh, watt meters; Western Electric Company, additional plants, Winston-Salem and Greensboro, electronics; General Electric Co., Asheboro, electric blankets; Cornell-Dubilier Co., Fuquay Springs, vibrators; Babcock & Wilcox, Wilmington, boilers; J. Bishop & Co., Southern Pines, hypodermic needles; Reichhold Chemicals, Inc., Charlotte, chemicals; Gary Steel Products Co., Rocky Mount, tanks; and Sylvania Electric Products Co., High Point, television.

Over the two-year period of the report, the Division has contacted by direct mail more than 1,000 manufacturers, and hundreds of these by personal calls in an effort to interest them in North Carolina sites. The number of interested





Meter Plant, Westinghouse Electric Corporation, Raleigh.

prospects is probably larger than at any other period in the history of the Division. A wide diversity of products is represented in this group, among which are machinery, electronics equipment, synthetic fibers, paper products, ceramics, toys, wallboard, electrical equipment, rubber products, chemicals of a widely varied nature, metal products, woolens, and worsteds, food products, and several types of garments.

STATISTICAL, ANALYTICAL AND GENERAL ACTIVITIES

Files of the Division carry the names of some 2,000 prospects developed over a period of years. Every one is considered to be in an active status until word is received that requirements have been entirely met either in North Carolina or elsewhere or unless notice is received that the project is dead.

Back of service to these industrialists and the attraction of new inquiries is a tremendous amount of economic research, assembling of facts, search for and gathering of information on available buildings, and survey of sites. The demand for data grows with the increase in the number of prospects and in the effort to present the State's advantages more effectively, also with increasing competition.

Almost every industrial prospect has different requirements, or emphasizes certain ones. In a majority of cases, the selection of a site extends over a period of months and, in some instances, years. The Division has worked with some companies as much as ten years or more before a final decision has been made.

During the last two-year period, the Division has directed more emphasis than ever before on the gathering, arrangement and presentation of basic data. Files have been enlarged in an effort to encompass information on any subject about which an industrialist might make inquiry. This task is never complete. With the expansion of files, the job of keeping them current has grown.

The magnitude of information required can be more fully appreciated by citing some of the primary subjects of interest to industry. These include markets, labor, raw materials, buildings, sites, transportation, water, power,

taxes, educational facilities, recreation, community attitudes, housing, and numerous others.

Building Lists: Several years ago the Division began the preparation of lists of buildings available for industrial and commercial purposes. Since that time a total of 37 lists and 12 supplements have been issued, four lists and five supplements during this report period. Preparation of a list is preceded by a State-wide survey, involving the location of structures not hitherto included and verifying the availability of those already recorded.

The latest list describes 126 buildings, containing approximately 4 million square feet of floor space. A new feature is a Select List of the best structures for the convenience of busy executives.

Site Brochures: The first phase of a State-wide survey of sites meeting water requirements in volume and quality has been completed. Data have been assembled on more than 100 of these. A standard form of description has been adopted and brochures issued on each of the locations. These carry summaries of basic data, such as quality and quantity of water, location, transportation, power and population. They are accompanied by maps which make easy identification possible.

Briefs: Concise information in one and two typed sheets on subjects of interest to virtually every manufacturer were prepared toward the end of the preceding biennium. Subjects covered include labor, power, climate, transportation (rail, motor carrier, air, and water), financial resources, hospitals, public health, recreational facilities, highways, mineral resources, agriculture, schools, taxes, markets, unemployment compensation, sites, and industrial development. In most instances, the appropriate State agency either prepared the brief or collaborated. Each brief was revised during this biennium.

Industrial Directory Reprints: Through a special arrangement with the N. C. Department of Labor, the Division has reprinted the 1952 Industrial Directory by classification. The reprints are used primarily to assist inquirers in making contacts with and to circulate information on existing industries. The inexpensive reprints can be distributed more generally than the more bulky and expensive directory.

Steel Mill Project: Realizing that the existence of a steel mill in North Carolina might be the key to the more rapid development of other plants for the fabrication of metals, the Division for several years had explored the idea of trying to attract such an industry to the State. The general consensus was that this possibility would be enhanced by the Defense Program. A preliminary presentation was compiled by the Division last biennium and was presented to Government agencies and steel companies.

Early in the current biennium, it was decided that the best course would be to have an economist, familiar with the steel industry, examine the practicality of establishing a mill in the State. Dr. W. G. Friedrich, widely known economist, was employed for this purpose. The project was financed through funds of the Division, which contributed half the cost, with one-sixth each being provided by the City of Wilmington, New Hanover County, and the State Ports Authority.

After a study of several months and close contact with Government agencies, the industry, and others, Dr. Friedrich advised that he did not think that chances for the establishment of the steel industry at this time were bright enough to warrant the expenditure of a large amount of time and funds. He expressed the opinion, however, as metal using industries increase in the State, chances for the industry would grow.

Research Project: Dr. Friedrich also was engaged to advise on means to encourage the establishment of additional research facilities in North Carolina. In a report on this subject, Dr. Friedrich made various recommendations and contacts in behalf of the State. A follow-up was instituted and carried out. Continued attention will be devoted to this project by the Division.

New York and Washington Representation: Since much of the background of industrial expansion centers in these cities, the Division conceived the idea that representation in each would be a contribution to the development of the State. The Division employed the firm of Beasley & Beasley, of Washington, and Fessenden S. Blanchard, of New York, for contact purposes and in an advisory capacity on a temporary basis. Unexpended funds were allocated for this purpose. At the end of the contract period, funds were available for the continuation of the contract with only one firm. Because management is concentrated to a considerable degree in New York, the contract was renewed with the firm in that city. It is believed that both arrangements have contributed in an important way toward numerous projects.

Cement: Efforts, extending over several years, to bring about the establishment of a cement plant in North Carolina have been continued during the biennium. The study of marl deposits as a source of raw materials, begun last biennium by G. W. Moore, was continued into the current two-year period. The project was financed jointly by the Department of Conservation and Development, the State Highway and Public Works Commission, and the Department of Agriculture. For the Department, Director Ross headed up the project which also was participated in by the Division of Commerce and Industry and the Division of Mineral Resources. Results of the studies are promising.

Ports and Natural Gas: Because these factors are important to industrial expansion, the Division has long been interested in efforts to bring about their development. At the close of the biennium, plans were being made to celebrate the completion of the port projects at Morehead City and Wilmington. Natural gas service already has been inaugurated in some of the Piedmont cities and lines are scheduled to be extended eastward and westward. Development of the ports and inauguration of natural gas service should enable the State to compete successfully for some types of industry which have not hitherto given this area serious consideration. Both can be hailed as definite milestones in the history of the State.

Local Contacts: One of the most important features of the work of the Division is community contacts. In every project there is a local angle which is often the major consideration.

Efforts of the State and local agencies are complementary to each other; and the degree of success attained rests, to a large measure, on mutual co-operation. Most of the larger communities have development representatives in the form of Chambers of Commerce. Others are represented by Merchants' Associations and committees from various organizations. The Division works continuously with these groups. Its representatives make frequent appearances before various organizations for the purpose of explaining its procedure and seeking the closest possible cooperation.

In numerous instances, representatives of the Division have advised community groups and assisted in working out industrial promotion programs. Forms for community surveys have been made up and distributed where requested. In some cases, the Division has helped to plan procedure in making surveys and advised in the compilation of reports. Local data on every com-

munity where available are kept in the Division files and are freely used for presentation to prospects.

State Advertising: Display advertising during the past two years has brought a record number of inquiries. Particularly successful has been a special series which featured recreational attractions.

The keynote of the advertising copy during the last few years has been "Accessible Isolation," a phrase coined by the Division of State Advertising which has become almost inseparably identified with the program. The phrase aptly describes a condition which has become a part of the thinking of industrialists in recent years—a location away from congestion of potential military targets but easily accessible to modern conveniences.

Publications: In addition to reports mentioned elsewhere, the following publications were issued by the Division during the report period:

1950— "Opportunities in the Frozen Egg and Cold Storage Industry"

"Your Plant Location in North Carolina"

Resource—Industry Series No. 6, "Opportunities for Small Wood-working Plants," by Lenthall Wyman, N. C. State College

1951— Rural Industries Brief No. 7, "Opportunities for Processing Tropical Woods in North Carolina," by James S. Bethel, N. C. State College, in cooperation with the Division of Forestry

"Opportunities for Supplemental Manufacturing in North Carolina," by Ruddell Reed, N. C. State College

1952— Resource—Industry Series No. 7, "Utilizing Cull Timber Mill Scrap and Waste in North Carolina," by Lenthall Wyman, N. C. State College, in cooperation with the Division of Forestry

"Potentials of the Woolen and Worsted Industry in North Carolina," by Chas. T. Main, Inc.

"Industrial North Carolina" (a four-page brochure).

SMALL BUSINESS

On February 22, 1951, General W. H. Harrison, Administrator, Defense Production, sent a telegram to Governor W. Kerr Scott, requesting him to appoint a Small Business Committee to assist business in bridging over the period when many of the Nation's productive facilities would be converted to Defense production.

It was anticipated that considerable hardships might be encountered by some of the plants in obtaining critical raw materials and that other problems would arise as a result of the Mobilization Program. Another activity suggested for the Committee was to advise means of distributing Defense contracts in order that the smaller firms might obtain a fair share.

Governor Scott appointed the following Small Business Committee: Charles H. Jenkins, Harvey Booth, Raymond Bryan, C. O. Butler, Bruce Cameron, A. L. Fletcher, Henry Foscue, Clyde Gordon, R. P. Holding, S. B. Jeffreys, Earl Johnson, Garland Johnson, Mose Kiser, M. G. Mann, F. M. Pridgen, Jr., Jerome Silverman and C. M. Vanstory.

On March 30, a meeting was held and Chas. H. Jenkins of Ahoskie, a member of the Board of Conservation and Development, was elected Chairman

and Paul Kelly, of the Division of Commerce and Industry, Executive Secretary. Subsequently, Marion J. Shuffler, from the Department's Administrative Division, was assigned to work full time with the Committee. Administrative duties were placed under the Commerce and Industry Division.

Immediately, the Division began a study of the effects of the Defense Program on small business in the State with a series of conferences in key cities. One of the first projects was a survey of metal-working facilities which were expected to be the first to feel the effect of the allocation of metals. This survey was published in a report entitled "North Carolina Metal Working Facilities." All firms which supplied information were listed according to location, product, and class of work each was equipped to do. Three editions of the report were circularized to Defense agencies and prime contractors throughout the Country as a guide to production facilities in the State, with the request that the plants be given consideration in the awarding of prime and sub-contracts.

The Division also made extensive efforts to have the larger contractors establish an exhibit of Defense materials requiring sub-contracts. Considerable encouragement was received for the project and commitments were made by Defense officials that an exhibit would be held in North Carolina should others be scheduled.

In numerous cases, the Division rendered individual assistance to concerns suffering hardships from the Controlled Materials Plan. It cooperated with Federal agencies in setting up the special Industry Assistance Clinic at Charlotte on January 23, 1952. Some 23 business concerns and several prime contractors were present at the clinic.

Through the period of greatest need, the Small Business unit rendered service. When it was first initiated there were three prime Defense contracts in the metal field in the State. Today there are 26 or more. As the program for which the Committee was established approached its objectives, demands for its services became less numerous and since that time activities have slackened and facilities formerly devoted to that purpose have been applied toward the general development of the State.

RECOMMENDATIONS

Home Industry: A request is included in budget estimates of the Division for the forthcoming biennium for \$20,000 annually for the resumption of the Home Industry Program on a wider basis than previously.

An appropriation in the amount mentioned above would make possible a series of studies and research to point up opportunities for industrial development in smaller towns in the State and in areas where there is little or no manufacturing. With the determination of such opportunities, reports setting forth these potentials and giving certain basic information would be issued for the benefit of those who might be interested.

Planning: Planning as a State activity was discontinued several years ago when appropriations for that purpose were dropped. Since it is not within the scope of this Division to advocate the revival of a general planning program, it does seem appropriate to suggest a program which will remove some of the current handicaps to industrial and commercial advancement.

Such planning as is envisioned here would be in projecting public services of all types and community development to allow for ample sites and facilities in logical places for manufacturing plants and commercial enterprises. Such areas should be located as conveniently as possible to public services, trans-

portation facilities, and sources of industrial water. The difficulty of locating sites with these facilities within convenient and economic reach is steadily increasing. Failure to provide for necessary industrial areas may result in the loss of plants in the future.

Development Corporation: Competition for industrial development is becoming progressively more intensive among the states and communities. Most of the states already have agencies comparable to the Division of Commerce and Industry and their activities are increasing. Inducements in many forms are being offered. Several states offer tax exemptions for specified periods; others provide for the construction of buildings by local units on extremely low rental terms, which carry tax exemptions; and some communities go so far as to pay moving expenses and for the training of labor. Instances of site donations are comparatively numerous.

In general, assistance in industrial development in North Carolina has been limited to the services of official agencies, both State and local. In turn such services are supplemented by local development organizations such as Chambers of Commerce, civic groups, and trade associations.

As the practice of special inducement spreads in other states, the effectiveness of competition increases. Instances where special concessions are successful are not generally publicized; therefore, it is difficult to account for the loss of an appreciable number of industries.

The Division does not advocate attempting to meet competition through the use of public funds. North Carolina's industrial development has been achieved through private enterprise without financial assistance from public funds, and there does not seem to be justification for altering this policy.

The practice of organizing local development corporations to erect plants to lease to well rated concerns with a good operating record has extended to hundreds of communities throughout the Country. There are numerous variations of procedure. In this State, the source of local funds has been the individual citizens of the community; and it is believed that this procedure is the soundest plan that has been advanced. Study is being given to a plan embodying various methods of financing consistent with established principles. The greatest need of a project of this kind is in the small towns whose hopes of development rest, to a considerable extent, in an industrial development corporation. Further thought should be given to this subject.



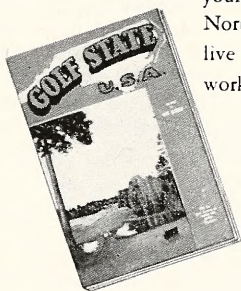
Waterfowl Shooting at Lake Mattamuskeet

A Bird in the Hand

... a game of golf, sports fishing, a mountain hike, scenic rides—need be only minutes away from your plant and your home in North Carolina.

North Carolina's ACCESSIBLE ISOLATION means room to live and play in a VARIETY VACATIONLAND where happy workers contribute to industrial prosperity.

Write today for your copy of "Golf State U. S. A."—a pleasure guide for busy executives.



Write PAUL KELLY,
Room N-1, Department of Conservation
and Development,
Raleigh, N. C., for
detailed information.



Example of combination Industrial-Tourist advertising which won national acclaim for the State Advertising Division. Since North Carolina pioneered this type of advertising in 1951, it has been widely imitated by other states.

DIVISION OF STATE ADVERTISING

CHARLES J. PARKER, *State Advertising Director*



North Carolina's position as the leading state industrially and agriculturally in the Southeast and its attractions for tourists, homeseekers and new industries were presented to the Nation during this biennium in the consistent advertising program which was originated in 1937 and carried ahead each year with increasing impetus.

Results, which are most tangibly reflected in establishment of new industries and steady increase in volume of the tourist industry, indicate that the State is getting a fabulous return on its investment in advertising.

The dollar volume of North Carolina's tourist industry increased from an estimated \$225,000,000 in 1949 to \$350,000,000 in 1952. This makes travel the State's third largest industry, exceeded only by the textile and tobacco industries. Over 200,000 paying guests may now be accommodated in the State simultaneously. In excess of

20,000 of these accommodations were constructed within this biennium. The return to the State Treasury in taxes from the tourist industry alone was estimated at \$12,000,000 for 1951.

During the biennium the Division of Commerce and Industry, which services inquiries resulting from this advertising, reported that 131 new plants with an approximate total investment of \$244,000,000 were established. These new industrial operations give employment to 28,356 workers with an annual payroll exceeding \$70,000,000.

The major portion of the State's investment in advertising was in national magazines and larger out-of-state newspapers within a 600-miles radius. Motion picture films produced for the State Advertising Division were displayed to millions of persons through television and audience showings, and hundreds of news stories and photographs were distributed throughout the United States and to several foreign countries.

Inquiries about State Set New Record—Inquiries about North Carolina as a place to live, to work and to play soared to 275,124, which was 88,153 more than the 186,971 inquiries received in the preceding biennium. These inquiries were generated by the advertising and publicity programs of the State Advertising Division. They came from all 48 states, the District of Columbia, and 71 foreign countries.

Display Advertising in National Publications—The widest newspaper and magazine advertising coverage in the history of the State Advertising Program was attained during this biennium. 62 newspapers and 31 magazines were used. North Carolina copy was distinctive. Our "Variety Vacationland" theme and our radical departure in combining recreational and industrial appeal were widely imitated. Our advertisements have been reproduced as outstanding examples in their field by "Printer's Ink" and "Southern" and "Western Advertising" magazines.

331,280,265 advertising messages were published in this biennium (circulation times insertions). The investment in this display advertising was \$285,858.00, which was \$2,115.00 less than the State's investment in the preceding biennium. This reduction was made possible despite sharply increased cost of advertising space by substantial savings in production of copy and plates through long-

range planning enabling multiple use of layouts and engravings. Display advertising has been handled by Bennett-Advertising, Inc., High Point, since 1949. The present contract extends until June 30, 1953.

The North Carolina Advertising Program was cited as a model by two national publications, "Resort Management" and "Hotel World-Review," which devoted considerable space to details of the North Carolina operation following a speech on that subject by the State Advertising Director before the National Association of Travel Organizations in annual convention at Mackinac Island, Michigan, in September 1951.

Publications in which North Carolina advertising appeared during this biennium included:

Magazines

AAA Tourbook	Manufacturers Record
American Legion Magazine	National Geographic
America's Textile Reporter	Newsweek
Business Week	Outdoor Life
Colliers	Parents
Cosmopolitan	Pathfinder
Country Gentleman	Progressive Farmer
Farm Journal	Redbook
Field & Stream	Salt Water Sportsman
Fortune	Scholastic Teacher
Highway Traveler	Sports Afield
Holiday	Time
Instructor	Travel
Life	U. S. News & World Report
Look	

Newspapers

Nat'l. Circulation	Christian Science Monitor, Grit, Wall Street Journal
Akron	Beacon-Journal
Atlanta	Journal
Baltimore	American, Sun
Birmingham	News-Age-Herald
Boston	Globe, Post
Buffalo	Courier-Express
Charleston (S. C.)	News & Courier
Charleston (W. Va.)	Mail
Chicago	Herald-American, Sun-Times, Tribune
Cincinnati	Enquirer, Times-Star
Cleveland	Plain Dealer
Columbus	Dispatch
Dallas	News, Times-Herald
Dayton	News
Detroit	Free Press, News, Times
Hartford	Courant
Indianapolis	Star
Jacksonville	Times-Union
Knoxville	News-Sentinel
Louisville	Courier-Journal
Miami	Herald, News
Mobile	Press-Register
Montgomery	Advertiser
Nashville	Banner
New Orleans	Item, Times-Picayune
New York	Herald-Tribune, Journal-American, Mirror, News, Times, World-Telegram-Sun
Newark	Star-Ledger
Norfolk	Virginian-Pilot
Orlando	Sentinel-Star
Philadelphia	Inquirer
Pittsburgh	Press, Sun-Telegraph
Richmond	News, Times-Dispatch, Leader
Roanoke	Times
St. Louis	Globe-Democrat
St. Petersburg	Times
South Bend	Tribune
Tallahassee	Democrat
Toledo	Blade
Washington	Post, Star, Times-Herald
Wilmington (Del.)	News-Journal

News and Photographs—Excellent use was made of News Bureau material in newspapers and magazines in the United States, Canada and Great Britain. Scrapbooks in the News Bureau, open for inspection at all times, show specific use.

8,854 photographs, 348 negatives or color transparencies, and 345 news and feature stories were distributed. This was less than the 500 news stories and 20,000 photographs estimated distributed during the preceding biennium. Distribution has been made progressively more selective. Policy of the Division is to make it more so, and emphasize cooperation with editors, writers and photographers on specific projects rather than broadcasting mimeographed publicity material.

Publications—Nearly two million booklets, folders and maps were produced by or with the cooperation of the Advertising Division. This was nearly double the production in the preceding biennium. There were 28 publications in all—13 printed books and folders, 1 map, and 14 multilithed booklets and folders.

PRINTED PUBLICATIONS

Variety Vacationland (booklet) 276,500	Golf State U.S.A. 25,500
Places to See in N. C. 249,000	Fishing & Hunting (booklet) .. 25,200
Variety Vacationland (folder) 232,100	Highway Maps 93,900
Tarheel State 195,150	Collins' Travelbook 52,209
Color Parade 113,300	N. C. Story (reprint from Manufacturers Record) 10,000
Carolina Calendar 111,000	Salt Water Sportsman's Fishing Guide 5,000
What to See & Do in N. C. 100,000	
North Carolina Book (2nd edition 1950) 53,000	

MULTILITHED PUBLICATIONS

Outer Banks 14,000	Fishing Western N. C. 33,500
Outdoors in North Carolina 20,000	Facts about North Carolina 69,950
Mid-South Resorts 5,000	Coastal Fishing 14,500
Industrial North Carolina 9,000	Agricultural N. C. 7,000
Historical North Carolina 19,500	Fishing & Hunting 17,000
Great Smoky Mountains 54,500	Ocracoke 4,000
N. C. Mountain Tours 35,500	

Total publications produced in biennium: 1,935,309.

Distribution of Literature—More than a million, seven hundred thousand pieces of literature promoting North Carolina were placed in the hands of readers. A large portion of our travel literature is now distributed through travel and information offices throughout the Nation. Shipments were made in bulk to nearly 1,000 such distributional agencies. This method is more economical than the old coupon advertisement and individual mailing method which the Advertising Division began gradually abandoning in 1951 in favor of the bulk distribution method. Of the 1,709,781 pieces of literature used in the biennium, most were produced by the Advertising Division itself, but several hundred thousand pieces were distributed for regional and local Chambers of Commerce and other promotional agencies. Records for the preceding biennium are incomplete, so there are no comparable figures. It is estimated, however, that the amount of literature used in this biennium was more than double that distributed in the preceding two-year period.

Motion Pictures—Over half a million people saw State Advertising Division movies. Two 16mm movies in full color and sound were produced for the

Division by the Communication Center of the University of North Carolina. The first, completed in 1951, is entitled "Variety Vacationland." It is a travelogue, 22-minutes long, replacing the original "Variety Vacationland" donated by R. J. Reynolds, Jr., in 1939. During the biennium there were 89 showings of the old "Variety Vacationland" to audiences totaling 17,000; 1,267 showings of the new "Variety Vacationland" to 496,315 persons; and 81 showings of the "Tarheel State," produced in 1952, to audiences numbering 9,430. The "Tarheel State" is a 30-minute documentary film covering industrial, agricultural and social features not found in the travelogue.

Showings of all three movies totaled 1,437 to audiences estimated at 512,745. This figure includes some television showings, which in future records will be segregated. At the end of the biennium, the Division owned 40 prints, of which 34 were circulated through the Film Library of the University of North Carolina. The remainder were on deposit with film libraries elsewhere.

Radio and Television—Exploration of these media during the biennium indicated that much wider use should be made of them in coordination with the already well-established position of the Advertising Division in newspapers, magazines and promotional publications. A test showing of "Variety Vacationland" was arranged over WBT-TV in the spring of 1951. Results were so good that a presentation over the National Broadcasting Company's Coast-to-Coast TV network was obtained. These were followed by televisings over WPIX, New York; WEWS, Cleveland; WCAU and WPTZ, Philadelphia; KFI, Los Angeles; WAGA, Atlanta; WDSU, New Orleans; WFBM, Indianapolis; WDEL, Wilmington, Delaware; Woodruff Television, Pittsburgh; WOI-TV, Ames, Iowa; and WFMY, Greensboro.

Example of scenic photograph distributed by the State News Bureau to win world-wide publicity for North Carolina's attractions. The Blue Ridge Parkway meeting the Great Smoky Mountains. These parks, both partly in North Carolina, are the most visited of all national parks. In 1951 more than 4,000,000 people enjoyed their recreational advantages.



Numerous radio stations received regular news releases for incorporation into their news and feature programs. In addition, the Advertising Division participated in the NBC Coast-to-Coast Jane Pickens Show with John Harden of Greensboro being interviewed on North Carolina's vacation attractions. State Advertising Director Charles Parker participated in vacation programs on WWJ, Detroit, and WDEL, Wilmington, Delaware. A series presented over WGY, Schenectady, New York, drew a considerable number of requests for vacation literature.

Encyclopedias, Maps and Reference Books—The State Advertising Division is recognized as the official source of information about North Carolina. During the biennium it supplied facts and pictures for original articles and revision of many of the World's most consulted reference books, including: Information Please Almanac; Colliers' Encyclopedia; World Book Encyclopedia; Wonderland of Knowledge Encyclopedia; Statesman's Year-Book, London; Compton's Picture Encyclopedia; World Scope Encyclopedia; Standard World Atlas, Rand McNally; American Educator Encyclopedia; Encyclopedia Americana; New Century Cyclopedia of Names; AAA Tour Book; National AA Tour Guide.

Information and pictures also were supplied for the following maps and books: Texaco Map, Rand McNally; Esso Map, General Drafting Co.; New World Atlas, Container Corp.; North Carolina Almanac; Your State and World Geography; America Libre, published by Empresa Periodistica Prensa Ecuatoriana Ltd., Gyaquil, Ecuador; Pictorial Mural Map of U. S., Rappaport Studios, Inc., Cleveland, Ohio; Whitman's Answer Book, Racine, Wisconsin; Travel America, New York; textbooks by Silver Burdett Co., N. Y.; Guide to Over 1,000 Vacation & Travel Books, Booklets and Literature by Abram A. Golden, Counsel, Municipal League of Newark, N. J.; Souvenir Book of America, Cecil Mathews, McGregor, Texas; Capitals and Capitols of U. S., G. W. Garrard, Bakersfield, Calif.; National Survey on State Employees and State Highway Needs by Clement J. Gregoire, Augusta, Maine; Hope of the Nation, book on Americana by Doubleday & Co.; Bryant's Grammar and Composition, Chas. Scribners' Sons; Camera Lyrics, Eugene E. Flink, Osseo, Minn.; Marine Game Fishes of the World, American Museum of Natural History, N. Y.; geography textbook, Ginn & Co., Mass.; elementary textbook in history and geography, MacMillan Company; Fun on the Road, published by Hart Publishing Co., N. Y.; Educational Paint Book by Planters Nut and Chocolate Co.; and Our Eastern Playgrounds, by McGraw-Hill Book Company.

Service Bulletins, Directories and Information Sheets—To meet a demand satisfied from no other source, the Advertising Division expanded its production of informational material in this field despite the fact that it placed a heavy drain on the limited personnel available to revise and maintain the high degree of accuracy and up-to-dateness essential to this type of information. Forty-seven of these publications were issued with circulation of 208,515 copies. They were (with number issued):

Service Bulletins (4)

North Carolina Bulletin	69,002
Coming Events	29,270
Property Seekers	32,073
Press Photographers	1,872

Directories (8)

N. C. Fairs	26
Chambers of Commerce	4,250

Summer Camps	4,900
Employment Offices	400
N. C. Newspapers	1,150
Publications List	1,175
N. C. Organizations	10
Radio & Television Stations	75

Information Sheets (35)

Great Dismal Swamp	200
N. C. Legal Holidays	18

Photo Murals	1,250	Tobacco in N. C.	100
Deep Sea Fishing		N. C. Music	1,100
Guides & Boats	1,855	Population	975
Ferry Schedule	3,250	Full or Partial Retirement	725
Historic Homes & Buildings	1,210	Altitudes	500
N. C.'s Tourist Industry	11	"Tarheel State" Movie	350
Travel Movie	625	Covered Bridges	25
"Variety Vacationland" Movie	875	Religious Assemblies	1,225
Waterfalls	200	Negro Accommodations	150
Lakes	2,250	Accommodations Rates	4,000
Climate	1,700	Movie Information	300
Marriage Laws	250	Camping in N. C.	100
Handicrafts	450	National & State Parks	100
Beaches	15,000	Ocracoke Today	100
State Advertising Program	193	Gulf Stream Fishing	1,400
Taxes upon Individuals	100	Outer Banks	4,000
Blue Ridge Parkway	17,225	Honeymoon Special	2,500

Roadside Parks and Other Cooperative Enterprises—Roadside Parks now being placed in use throughout the State are the result of cooperative effort on the part of the State Highway and Public Works Commission and the Department of Conservation and Development. A resolution adopted by the Board on July 25, 1950, instructed the State Advertising Director to pursue the subject of roadside development as a tourist attraction with the Highway Commission. The Highway Commission has been most cooperative, not only in pushing the Roadside Park Program forward, but in providing new access roads to scenic attractions and providing more picnic tables, turnouts and overlooks. Return on this investment in greater tourist income is incalculable.

The Advertising Division also cooperated with the State Highway Patrol in handling complaints of out-of-state residents about traffic violation cases and in disseminating information to visitors. The Patrol has been most cooperative and the sensational development of the tourist industry has been due in no small measure to this understanding cooperation.

The National Park Service, State Wildlife Resources Commission, Health Department, Revenue Department, Governor's Office, Board of Health, Agricultural agencies—and, in fact, all State, Federal and Regional agencies called upon for assistance have been most cooperative. Particularly to be noted is the program of the Wildlife Resources Commission to provide new access roads to fishing places. This will pay dividends in increased tourist revenues.

The Advertising Division worked closely with regional promotional organizations, including the South Eastern N. C. Beach Association, Western N. C. Tourist Association, Blue Ridge Associated Chambers of Commerce and Dare County Tourist Association. Contacts with local Chambers of Commerce were increased, and a larger volume of inquiries were referred for more detailed local handling than could be accomplished in the State office. The Division worked closely with the four symphonic dramas, disseminating publicity that is bringing us National distinction as the "summer drama state."

Recordings of State Song—A long-felt need for recordings of the State Song was filled. Records with three renditions of "The Old North State"—band, orchestra, and vocal—were produced for the Advertising Division by the Communication Center of the University of North Carolina at Chapel Hill. The album is available at \$3.00.

Travel Shows, Forums, Displays, Meetings and Conventions—Activities of the Advertising Division were broadened to include greater participation in the

direct public contact fields. The State Advertising Director appeared on two travel forums, both attended by approximately 2,000 persons. One at Wilmington, Delaware, was sponsored by the Wilmington NEWS-JOURNAL, and the other at Detroit was sponsored jointly by the Detroit NEWS and the University of Michigan. An exhibit, personally attended by two Advertising Division representatives, was placed in the International Travel Show of the Carolina Motor Club in Charlotte. Films were displayed and literature was distributed at all these.

Displays and literature were supplied numerous conventions, including Lions International, Junior Chambers of Commerce and National Education Association. Special murals, flags and display materials were acquired during the biennium for this purpose. The Division also assisted in inducing several large conventions to come to the State, including the National Association of Tax Administrators and the International Association of Public Employment Security Officials.

Talks on North Carolina's diversified promotional program were made by the State Advertising Director before the National Association of Travel Organizations, of which he is a member of the Board of Directors; Elizabeth City, Raleigh and Winston-Salem Rotary Clubs; Raleigh Civitan and Kiwanis Clubs; Raleigh Tourist and Convention Bureau; U. S. Highway 129 Association; Western N. C. Tourist Association; Boone Chamber of Commerce; Board of Directors of Asheville Chamber of Commerce; Raleigh Advertising Club; Charlotte Advertising Club; District meeting of tourist operators in Elizabeth City; and numerous others.

In addition to representing the State at meetings of the Directors of the National Association of Travel Organizations, the State Advertising Director was appointed by the Governor as a delegate to the Southern Regional Conference of the Council of State Governments, held in Asheville in May 1952.

More Realistic Polio Publicity—The Advertising Division initiated a movement for more realistic handling of polio publicity during summer vacation season. **Factual** news coverage of polio cases was encouraged. Hearty cooperation was accorded by the State Health Department and editors and Chambers of Commerce throughout the State. In the past, our tourist industry has been needlessly hurt by informational campaigns of polio organizations, which in themselves are laudable, but which can be effectively timed to achieve their purpose without inciting scare headlines and broadcasts at the vacation season peak.

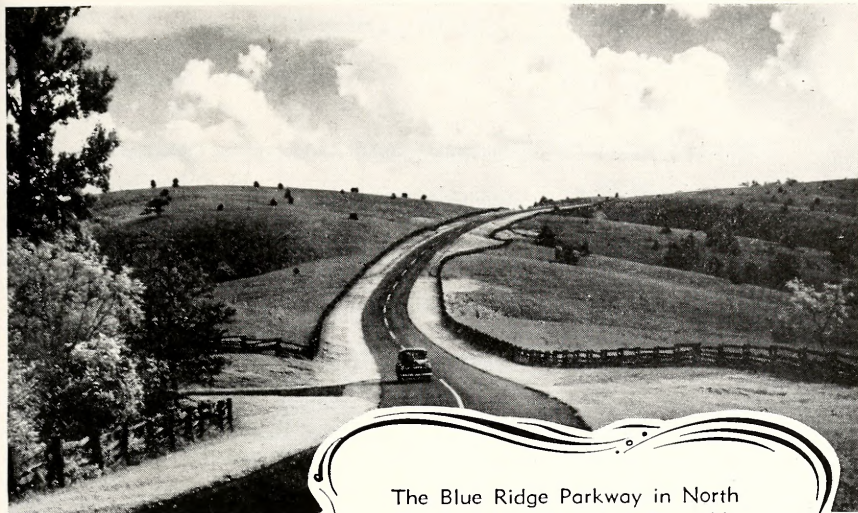
Personnel—Integration of the advertising, publications, travel service, and news and photographic functions of the State Advertising Division into two separate sections was accomplished with resultant increase in efficiency. During its organizational stage the State Travel Bureau was maintained as a separate unit; but with the resignation of its Manager, Mrs. Mildred Mosley, in March 1952, it was merged for operational purposes with the Advertising and Publications and Administrative section under the direct supervision of the State Advertising Director. At the same time, the State News Bureau under the management of Thomas H. Walker was granted more autonomy; and at the end of the biennium, except for over-all administration, was operating virtually as a separate agency. Absence of Photographer Sebastian Sommer on Military Leave and extended illness of Official State Photographer John Hemmer curtailed staff photographic operations; but the breach was filled by volunteer cooperation of members of the Carolina Press Photographers Association, including Board Member Hugh Morton. News Bureau personnel at the end of the biennium included, in addition to Manager Walker and Photog-

rapher Hemmer, Mary Hatley, Typist Clerk II, and Doris Fulton, Photographic Assistant.

The Advertising, Publications and Travel Service Section was staffed by Charles Parker, State Advertising Director; Evelyn Covington, Administrative Assistant; Jane Freeman, Tourist Representative I; Edith Young, Steno-Clerk II; Joyce Poole, Steno-Clerk I; Betty Floyd, Typist-Clerk I; and Charles Leonard, Janitor-Messenger.

In addition to Mrs. Mosley, Lauris Lambeth married and resigned. The vacancy was filled by Mary Hatley.

Including the Military Leave vacancy being held open for Sebastian Sommer, the roster of the Division calls for 12 jobs.

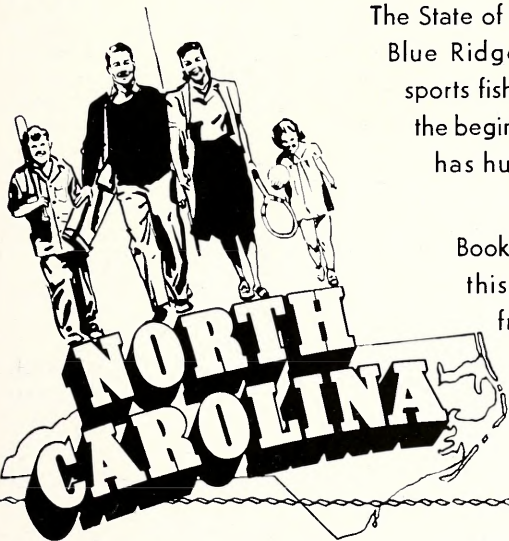


The Blue Ridge Parkway in North Carolina skims Mountain Tops. No advertising, no signs or commercial vehicles are permitted on the 400-mile long Parkway.

The State of the Great Smoky Mountains, Blue Ridge Parkway, salt and fresh sports fishing waters, all-year golf and the beginnings of New World History, has hundreds of PLACES TO SEE and THINGS TO DO.

Booklets and pamphlets describing this Variety Vacationland are free for the asking from the

Department of Conservation
and Development
Room 233
Raleigh, North Carolina



Type of tourist advertisement published in national magazines such as Life, Saturday Evening Post, and in metropolitan newspapers by the State Advertising Division. These advertisements draw over 100,000 inquiries about North Carolina a year and help make the tourist industry the State's largest cash income producer—being exceeded only by the giant textile and tobacco industries in which North Carolina leads the world.

BUDGETS

W. RAY BISHOP, Auditor

DEPARTMENT OF CONSERVATION AND DEVELOPMENT

MAINTENANCE FUNDS

STATEMENT OF RECEIPTS AND DISBURSEMENTS

Operating Fund

Biennium 1950-1952

	1950-51	1951-52
I. ADMINISTRATION:		
Disbursements:		
Attending Meetings—Board Members	\$ 6,042.34	\$ 5,881.47
Director's Office:		
Salary—Director	7,920.00	8,100.00
Salaries and Wages—Staff	40,116.86	36,114.59
Supplies and Materials	939.73	948.82
Postage, Telephone, Telegrams	850.11	1,046.04
Travel Expense	1,687.34	1,777.59
Printing and Binding	554.15	1,820.55
Repairs and Alterations	147.09	200.00
General Expense	587.63	207.51
Equipment	2,063.23	1,524.63
Conservation Congress Project	—	300.00
Special Communications Study—		
Salaries and Wages	1,760.00	1,885.00
Cooperation Board of Farm Organizations and Agencies	—	1,000.00
Cooperation Wildlife Resources Commission	2,688.35	—
Totals	\$ 65,356.83	\$ 60,806.20
Less Receipts:		
Sale of Publications	\$ 99.25	\$ 92.70
Transferred from Preceding Year	—	3,453.00
Totals	\$ 99.25	\$ 3,545.70
Appropriation	\$ 65,257.58	\$ 57,260.50
II. COMMERCE AND INDUSTRY:		
Disbursements:		
Salaries and Wages	\$ 44,650.00	\$ 55,370.29
Supplies and Materials	2,930.86	2,640.68
Postage, Telephone, Telegrams	4,096.69	3,250.27

MAINTENANCE FUNDS—Continued

	1950-51	1951-52
Travel Expense -----	4,759.24	6,470.55
Printing and Binding -----	6,544.88	2,499.28
Repairs and Alterations -----	477.44	398.99
General Expense -----	998.85	1,200.12
Motor Vehicle Operation -----	1,173.35	1,190.63
Equipment -----	569.18	2,333.22
Motor Vehicle Purchase -----	-----	275.74
Resource Use Studies -----	1,630.22	3,264.69
Industrial Development Projects -----	-----	8,607.04
River Basins Projects -----	-----	2,160.00
Hoffman Community Survey -----	593.00	-----
Cooperation State College—Plant Survey --	1,260.96	-----
Totals -----	\$ 69,684.67	\$ 89,661.50
Less Receipts:		
Transferred from Preceding Year -----	\$ 3,822.00	\$ 13,400.00
Contribution State Ports Authority -----	1,000.00	-----
Contribution New Hanover County -----	1,000.00	-----
Contribution City of Wilmington -----	1,000.00	-----
Totals -----	\$ 6,822.00	\$ 13,400.00
Appropriation -----	\$ 62,862.67	\$ 76,261.50
III. ADVERTISING:		
Disbursements:		
Salaries and Wages -----	\$ 34,014.01	\$ 38,336.45
Supplies and Materials -----	5,210.14	5,667.49
Postage, Telephone, Telegrams -----	8,489.11	9,726.26
Travel Expense -----	3,005.88	3,184.03
Printing and Binding -----	22,831.42	44,608.47
Repairs and Alterations -----	402.80	1,851.35
Direct Advertising -----	145,800.60	139,998.22
General Expense -----	2,495.33	942.29
Equipment -----	15,661.96	9,005.07
Motor Vehicle Operation -----	1,334.91	1,301.40
Motor Vehicle Exchange -----	663.67	107.33
Totals -----	\$ 239,909.83	\$ 254,728.36
Less Receipts:		
Transferred from Preceding Year -----	\$ 13,924.00	\$ 15,930.00
Appropriation -----	\$ 225,985.83	\$ 238,798.36

MAINTENANCE FUNDS—*Continued*

	1950-51	1951-52
IV. WATER RESOURCES:		
Disbursements:		
Salaries and Wages -----	\$ 33,424.92	\$ 17,024.15
Supplies and Materials -----	1,399.92	738.04
Postage, Telephone, Telegrams -----	249.58	39.96
Travel Expense -----	4,092.72	1,914.62
Printing and Binding -----	932.51	733.67
Motor Vehicle Operation -----	1,700.44	901.57
Repairs and Alterations -----	2,283.45	1,496.00
Cooperation U. S. Geological Survey -----	27,500.00	28,000.00
Coopertaion U. S. Geological Survey—		
Chemical -----	8,050.00	8,050.00
General Expense -----	1,038.58	172.19
Equipment -----	2,819.33	2,053.03
Workmen's Compensation -----		273.60
Totals -----	\$ 83,491.45	\$ 61,396.83
Less Receipts:		
Private Cooperation -----	\$ 1,450.00	\$ 1,450.00
Payment from Board of Health—		
Water Investigation -----	2,750.00	2,750.00
Transferred from Preceding Year -----	2,514.00	221.00
Totals -----	\$ 6,714.00	\$ 4,421.00
Appropriation -----	\$ 76,777.45	\$ 56,975.83
V. MINERAL RESOURCES:		
Disbursements:		
Salaries and Wages -----	\$ 17,189.12	\$ 17,130.00
Supplies and Materials -----	337.68	245.68
Postage, Telephone, Telegrams -----	349.25	342.72
Travel Expense -----	718.90	812.80
Printing and Binding -----	2,005.18	4,253.21
Motor Vehicle Operation -----	1,162.24	1,198.86
Repairs and Alterations -----	51.93	72.64
General Expense -----	64.30	102.93
Cooperation U. S. Geological Survey—		
Ground Water Study -----	5,000.00	5,750.00
Cooperation U. S. Geological Survey—		
Study of Minerals -----	4,083.85	4,969.93
Cooperation U. S. Geological Survey—		
Water Analysis -----	350.00	350.00
Motor Vehicle Exchange -----		619.50
Equipment -----	75.55	74.66
Limestone and Marbles Survey -----		147.18
Mineral Field Study Project -----		4,422.72
Cooperation T. V. A. Mineral Study -----	5,165.88	
Totals -----	\$ 36,553.88	\$ 40,492.83

MAINTENANCE FUNDS—*Continued*

	1950-51	1951-52
Less Receipts:		
Transferred from Preceding Year -----	\$ 4,010.00	\$ 7,887.00
Appropriation -----	\$ 32,543.88	\$ 32,605.83
 V-A. LIMESTONE PROJECT:		
Disbursements:		
Salaries and Wages -----	\$ 5,956.60	
Supplies and Materials -----	30.58	
Postage, Telephone, Telegrams -----	4.90	
Travel Expense -----	2,521.85	
Legal Expense -----	7.50	
Prospect Drilling -----	911.52	
Total -----	\$ 9,432.95	
Less Receipts:		
Cooperation Department Agriculture -----	\$ 1,572.00	
Cooperation Highway Commission -----	4,716.55	
Transferred from Preceding Year -----	3,145.00	
Total -----	\$ 9,433.55	
Appropriation -----	\$ --.60	
 VI. FOREST FIRE CONTROL:		
Disbursements:		
Administration:		
Salaries and Wages -----	\$ 41,391.57	\$ 42,432.18
Supplies and Materials -----	634.24	931.23
Postage, Telephone, Telegrams and Express -----	2,397.24	1,905.51
Travel Expense -----	2,392.37	2,443.26
Printing and Binding -----	4,123.08	4,595.95
Motor Vehicle Operations -----	3,053.06	3,917.74
Repairs and Alterations -----	1,668.77	887.73
Equipment -----	1,407.84	3,624.16
Motor Vehicle Purchase -----	4,049.12	7,804.32
Insurance and Bonding -----	469.75	446.26
Workmen's Compensation -----	2,550.03	1,339.52
Lights and Power -----	43.11	27.24
Buildings -----	4,670.19	291.94
Roadside Signs -----	-----	551.72
Radio Contractual Services -----	600.00	-----
Totals -----	\$ 69,450.37	\$ 71,198.76

MAINTENANCE FUNDS—*Continued*

	1950-51	1951-52
Cooperative Projects:		
Salaries and Wages	\$ 262,821.58	\$ 300,835.78
Wages—Towermen and Firemen	138,803.36	165,978.07
Expense—Fire Wardens	13,917.48	17,338.51
Fire Control Equipment	93,588.65	143,949.89
Repairs and Alterations	23,371.10	28,649.80
Lookout Towers	23,441.42	41,857.00
Lookout Towers—Repairs	—	1,838.91
Telephone Lines	3,423.31	—410.43
Buildings	10,785.21	11,636.22
Roads and Fire Lines	3,196.47	3,431.42
Fire Suppression—Labor	8,090.11	9,964.47
Fire Suppression—Other Expense	—	—3,079.40
Motor Vehicle Operation	63,085.98	81,424.95
Totals	\$ 644,524.67	\$ 803,415.19
District No. 1		
Asheville:		
Salaries and Wages	\$ 15,706.00	\$ 16,882.59
Postage, Telephone, Telegrams and Express	329.99	467.25
Travel Expense	968.79	1,191.62
Motor Vehicle Operation	2,087.32	2,359.65
Lights and Water	26.29	33.96
Rent	92.30	443.04
Totals	\$ 19,210.69	\$ 21,378.11
District No. 2		
Lenoir:		
Salaries and Wages	\$ 13,020.00	\$ 14,244.00
Postage, Telephone, Telegrams and Express	249.85	260.70
Travel Expense	451.66	649.28
Motor Vehicle Operation	1,469.51	1,631.44
Lights	—	14.06
Totals	\$ 15,191.02	\$ 16,799.48
District No. 3		
Rockingham:		
Salaries and Wages	\$ 12,714.00	\$ 13,756.00
Postage, Telephone, Telegrams and Express	425.25	496.63
Travel Expense	1,020.30	891.24
Motor Vehicle Operation	1,925.21	1,980.39
Lights	24.00	24.00
Totals	\$ 16,108.76	\$ 17,148.26

MAINTENANCE FUNDS—Continued

	1950-51	1951-52
District No. 4		
New Bern:		
Salaries and Wages -----	\$ 18,479.72	\$ 20,676.62
Postage, Telephone, Telegrams and Express -----	650.37	608.50
Travel Expense -----	1,456.87	1,497.53
Motor Vehicle Operation -----	2,575.36	2,888.40
Lights -----	256.36	192.15
Rents -----	501.40	582.00
Totals -----	\$ 23,920.08	\$ 26,445.20
District No. 5		
Rocky Mount:		
Salaries and Wages -----	\$ 9,310.00	\$ 10,234.00
Postage, Telephone, Telegrams and Express -----	549.04	534.09
Travel Expense -----	600.27	846.24
Motor Vehicle Operation -----	1,103.77	1,372.29
Lights -----	41.11	35.16
Totals -----	\$ 11,604.19	\$ 13,021.78
District No. 6		
Fayetteville:		
Salaries and Wages -----	\$ 13,422.00	\$ 14,178.00
Postage, Telephone, Telegrams and Express -----	453.95	457.44
Travel Expense -----	434.51	610.59
Motor Vehicle Operation -----	1,266.18	1,954.50
Lights -----	20.75	41.63
Rents -----	420.00	428.50
Totals -----	\$ 16,017.39	\$ 17,670.66
District No. 7		
Elizabeth City:		
Salaries and Wages -----	\$ 12,150.00	\$ 16,022.00
Postage, Telephone, Telegrams and Express -----	471.27	532.04
Travel Expense -----	828.24	1,089.99
Motor Vehicle Operation -----	1,816.50	2,143.42
Rents -----	436.20	436.50
Lights -----	89.00	112.73
Totals -----	\$ 15,791.21	\$ 20,336.68

MAINTENANCE FUNDS—*Continued*

	1950-51	1951-52
District No. 8		
Wilmington:		
Salaries and Wages	\$ 12,555.00	\$ 15,407.00
Postage, Telephone, Telegrams and Express	448.26	533.91
Travel Expense	696.10	1,038.14
Motor Vehicle Operation	1,817.23	2,139.50
Rents	420.00	234.62
Lights and Power	72.83	92.41
Totals	\$ 16,009.42	\$ 19,445.58
District No. 9		
Sylva:		
Salaries and Wages	\$ 9,618.00	\$ 10,422.00
Postage, Telephone, Telegrams and Express	237.63	339.52
Travel Expense	618.57	674.58
Motor Vehicle Operation	1,211.78	1,167.25
Rents	480.00	480.00
Lights and Power	18.56	38.19
Totals	\$ 12,184.54	\$ 13,121.54
District No. 10		
Lexington:		
Salaries and Wages	\$ 5,502.00	\$ 6,366.00
Postage, Telephone, Telegrams and Express	308.88	371.56
Travel Expense	186.13	235.46
Motor Vehicle Operation	411.82	566.66
Rents	420.00	420.00
Lights and Power	10.54	10.40
Totals	\$ 6,839.37	\$ 7,970.08
Disbursements Forest Fire Control	\$ 866,851.71	\$1,047,951.32
Less Receipts:		
Federal Cooperation	\$ 254,126.00	\$ 263,922.00
County Cooperation	172,054.07	194,552.58
Private Cooperation	20,680.37	20,792.09
Transferred from Preceding Year	38,606.00	84,152.00
Rentals from Employees	3,259.79	5,396.94
Totals	\$ 488,726.23	\$ 568,815.61
Appropriation	\$ 378,125.48	\$ 479,135.71

MAINTENANCE FUNDS—Continued

	1950-51	1951-52
VI-A. FOREST FIRE CONTROL		
Supplemental Budgets:		
Disbursements:		
Private Cooperation:		
Wages, Operators, Helpers	\$ 92.25	\$ 1,987.68
Expenses—Operators, Helpers	71.55	134.14
Motor Vehicle Operation	915.14	2,186.53
Repairs and Alterations	657.21	779.66
Equipment	812.87	66.74
Totals	\$ 2,549.02	\$ 5,154.75
T. V. A. Projects:		
Wages, Towermen and Firemen	\$ 6,047.90	\$ 5,583.62
Supplies and Materials		49.21
Travel Expense	130.94	10.23
Motor Vehicle Operation	347.93	616.37
Buildings	699.50	399.02
General Expense		49.45
Contractual Services	164.17	91.34
Equipment	11,972.10	4,419.46
Totals	\$ 19,362.54	\$ 11,218.70
Total Supplement	\$ 21,911.56	\$ 16,373.45
Less Receipts:		
Private Cooperation—Fire Lines	\$ 2,048.20	\$ 4,843.06
Federal Cooperation—T. V. A.	17,249.93	11,416.69
Transferred from Preceding Year	3,880.00	568.00
Totals	\$ 23,178.13	\$ 16,827.75
Appropriation	\$ —1,266.57	\$ —454.30
VII. GENERAL FORESTRY:		
Disbursements:		
Administration:		
Salaries and Wages	\$ 16,044.00	\$ 13,705.21
Supplies and Materials	185.92	694.86
Postage, Telephone, Telegrams and Express	495.98	499.90
Travel Expense	1,051.32	621.82
Printing and Binding	1,200.22	1,649.90
Motor Vehicle Operation	1,113.96	1,095.56
General Expense	170.35	203.32
Equipment	1,579.70	926.76
Motor Vehicle Exchange		999.06
Totals	\$ 21,841.45	\$ 20,396.39

MAINTENANCE FUNDS—*Continued*

	1950-51	1951-52
FOREST SURVEY PROJECT:		
Salaries and Wages—Temporary		\$ 11,000.00
Supplies and Materials		4.50
Travel Expense		5,984.20
Motor Vehicle Operation		685.48
Equipment		5,027.57
Total		\$ 22,701.75
Totals General Forestry	\$ 21,841.45	\$ 43,098.14
Less Receipts:		
Federal Cooperation	\$ 1,500.00	\$ 1,500.00
Transferred from Preceding Year	2,059.00	41,195.00
Totals	\$ 3,559.00	\$ 42,695.00
Appropriation	\$ 18,282.45	\$ 403.14

VIII. FOREST MANAGEMENT:

Disbursements:

Salaries and Wages	\$ 49,791.02	\$ 50,999.58
Supplies and Materials	1,201.81	2,756.09
Postage, Telephone, Telegrams and Express	598.83	951.83
Travel Expense	3,278.68	3,319.33
Printing and Binding	388.57	1,103.30
Motor Vehicle Operation	5,645.12	6,061.04
Repairs and Alterations	34.74	62.11
Motor Vehicle Exchange	5,135.47	1,363.74
Equipment	1,718.73	2,807.14
Workmen's Compensation		1,288.25
Wood Waste Project	3,168.31	826.08

Totals	\$ 70,961.28	\$ 71,538.49
---------------------	---------------------	---------------------

Less Receipts:

Federal Cooperation—Farm Forestry	\$ 17,965.98	\$ 28,552.62
Transferred from Preceding Year	2,344.00	2,931.00

Totals	\$ 20,309.98	\$ 31,483.62
---------------------	---------------------	---------------------

Appropriation	\$ 50,651.30	\$ 40,054.87
----------------------------	---------------------	---------------------

IX. NURSERIES:

Salaries and Wages	\$ 17,892.60	\$ 21,130.28
Labor	43,274.85	42,614.44
Supplies and Materials	15,970.77	16,358.03
Postage, Telephone, Telegrams and Express	1,295.21	1,299.62
Travel Expense	795.65	746.39
Printing and Binding	88.85	209.09

MAINTENANCE FUNDS—Continued

	1950-51	1951-52
Motor Vehicle Operation -----	4,826.47	6,272.82
Lights and Power -----	284.66	273.75
Repairs and Alterations -----	1,367.59	2,010.90
Insurance and Bonding -----	1.30	51.78
Equipment -----	4,368.74	4,499.76
Motor Vehicle Exchange -----	1,123.77	3,036.09
Buildings and Improvements -----	8,888.16	5,236.95
Workmen's Compensation -----		102.70
General Expense -----	—78.20	
Totals -----	\$ 100,100.42	\$ 103,842.60
Less Receipts:		
Federal Cooperation -----	\$ 11,496.00	\$ 10,481.00
Sale of Seedlings -----	19,105.30	28,326.91
Transferred from Preceding Year -----	5,704.00	10,924.00
Rentals from Employees -----	615.00	1,114.00
Sale Forest Products -----	5,350.00	
Totals -----	\$ 42,270.30	\$ 50,845.91
Appropriation -----	\$ 57,830.12	\$ 52,996.69
X. STATE FORESTS:		
Disbursements:		
Salaries and Wages -----	\$ 11,602.18	\$ 10,595.37
Labor -----	6,914.55	8,077.20
Supplies and Materials -----	4,069.20	7,208.08
Postage, Telephone, Telegrams and Express -----	345.28	445.41
Travel Expense -----	473.69	323.78
Printing and Binding -----	34.16	13.73
Motor Vehicle Operation -----	7,730.42	9,161.09
Lights and Power -----	158.09	190.06
Repairs and Alterations -----	1,491.30	2,864.24
Timber Marketing -----	31,478.76	32,891.08
Insurance and Bonding -----	277.44	273.53
Equipment -----	7,763.85	4,220.96
Motor Vehicle Exchange -----	1,178.72	7,186.19
Workmen's Compensation -----	984.66	1,260.45
Severance Taxes in Lieu of Taxes -----		4,500.00
Buildings and Improvements -----	843.90	
Totals -----	\$ 75,346.20	\$ 89,211.17
Less Receipts:		
Bladen Lakes State Forest -----	\$ 92,461.61	\$ 75,232.23
Transferred from Preceding Year -----	1,531.00	14,838.00
Rentals from Employees -----	339.00	429.86
Totals -----	\$ 94,331.61	\$ 90,500.09
Appropriation -----	\$ —18,985.41	\$ —1,288.92

MAINTENANCE FUNDS—*Continued*

	1950-51	1951-52
XI. STATE PARKS:		
Disbursements:		
Administration:		
Salaries and Wages	\$ 30,431.84	\$ 34,319.81
Wages—Seasonal Employees	742.59	750.44
Supplies and Materials	241.94	520.13
Postage, Telephone, Telegrams and Express	392.04	571.74
Travel Expense	1,835.58	1,825.00
Printing and Binding	598.04	299.64
Motor Vehicle Operation	1,744.84	1,839.52
Repairs and Alterations	98.70	89.99
General Expense	100.29	113.86
Workmen's Compensation	362.70	1,079.57
Insurance and Bonding	1,761.00	1,680.57
Equipment	528.97	194.47
Motor Vehicle Exchange	—	1,300.00
Arts and Craft Project	688.20	389.71
Imprest Cash Advances for Change	1,500.00	1,450.00
Motor Vehicle Purchase	1,183.73	—
Totals	\$ 42,210.46	\$ 46,424.45
Cliffs of the Neuse:		
Salaries and Wages	\$ 3,517.16	\$ 6,609.24
Wages—Seasonal Employees	1,401.00	1,315.57
Labor	958.08	1,474.65
Supplies and Materials	236.13	1,336.73
Postage, Telephone, Telegrams and Express	40.00	70.00
Travel Expense	21.76	98.86
Motor Vehicle Operation	325.29	745.53
Lights and Power	170.97	189.45
Repairs and Alterations	593.80	804.12
General Expense	24.00	33.31
Equipment	77.03	551.61
Motor Vehicle Exchange	—	1,122.61
Stores for Resale	89.18	383.76
Totals	\$ 7,454.40	\$ 14,735.44
Crabtree Creek:		
Salaries and Wages	\$ 7,456.16	\$ 9,331.83
Wages—Seasonal Employees	1,269.75	1,383.50
Labor	1,334.78	1,865.45
Supplies and Materials	1,126.94	3,849.50
Postage, Telephone, Telegrams and Express	235.18	219.02
Travel Expense	32.02	70.00
Motor Vehicle Operation	1,767.82	2,284.93
Lights and Power	513.07	713.70
Repairs and Alterations	8,599.97	5,790.02
General Expense	115.47	141.51

MAINTENANCE FUNDS—Continued

	1950-51	1951-52
Equipment -----	1,074.70	1,596.09
Motor Vehicle Exchange -----	-----	732.61
Stores for Resale -----	698.83	186.71
Totals -----	\$ 24,224.69	\$ 28,164.87
Fort Macon:		
Salaries and Wages -----	\$ 4,581.93	\$ 5,030.67
Wages—Seasonal Employees -----	2,892.87	2,670.35
Labor -----	914.10	1,352.85
Supplies and Materials -----	273.44	1,197.00
Postage, Telephone, Telegrams and Express -----	102.12	225.00
Travel Expense -----	69.93	144.90
Motor Vehicle Operation -----	597.05	852.90
Lights and Power -----	167.54	233.69
Repairs and Alterations -----	1,237.56	1,370.91
General Expense -----	176.07	300.01
Equipment -----	177.50	970.00
Motor Vehicle Exchange -----	-----	1,122.61
Stores for Resale -----	967.99	3,093.06
Restoration of Fort Macon -----	886.17	-----
Totals -----	\$ 13,044.27	\$ 18,563.95
Hanging Rock:		
Salaries and Wages -----	\$ 5,428.00	\$ 6,138.00
Wages—Seasonal Employees -----	3,674.25	3,678.97
Labor -----	3,226.80	3,749.50
Supplies and Materials -----	860.59	1,463.53
Postage, Telephone, Telegrams and Express -----	209.84	284.90
Travel Expense -----	-----	100.26
Motor Vehicle Operation -----	1,078.60	1,723.95
Lights and Power -----	256.84	272.03
Repairs and Alterations -----	6,144.04	4,473.27
General Expense -----	1,164.78	1,874.35
Equipment -----	583.95	901.41
Stores for Resale -----	5,213.59	5,771.92
Motor Vehicle Purchase -----	975.19	-----
Totals -----	\$ 28,816.47	\$ 30,432.09
Hiwassee:		
Salaries and Wages -----	\$ 11,467.84	\$ 15,056.00
Wages—Seasonal Employees -----	780.00	540.28
Labor -----	529.95	733.90
Supplies and Materials -----	516.79	184.11
Postage, Telephone, Telegrams and Express -----	69.85	108.50

MAINTENANCE FUNDS—*Continued*

	1950-51	1951-52
Travel Expense	42.56	125.00
Motor Vehicle Operation	292.52	457.23
Lights and Power	1,504.67	1,631.91
Repairs and Alterations	1,168.50	793.08
General Expense	372.11	211.68
Equipment	853.32	966.61
Motor Vehicle Exchange	—	1,122.65
Totals	\$ 17,598.11	\$ 21,930.95
Jones Lake Area and Singletary Lake Camps:		
Salaries and Wages	\$ 4,699.80	\$ 5,242.31
Wages—Seasonal Employees	2,084.00	1,854.52
Labor	1,379.95	1,094.50
Supplies and Materials	566.63	831.65
Postage, Telephone, Telegrams and Express	184.99	299.70
Travel Expenses	65.00	100.00
Motor Vehicle Operation	990.95	1,288.72
Lights and Power	205.49	203.42
Repairs and Alterations	2,797.53	2,794.06
General Expense	449.78	496.58
Equipment	945.90	731.11
Motor Vehicle Exchange	—	1,122.61
Stores for Resale	2,817.68	2,699.98
Totals	\$ 17,187.70	\$ 18,759.16
Morrow Mountain:		
Salaries and Wages	\$ 6,947.00	\$ 7,968.27
Wages—Seasonal Employees	3,806.36	3,846.40
Labor	1,745.85	2,024.10
Supplies and Materials	1,063.78	1,675.90
Postage, Telephone, Telegrams and Express	188.71	209.93
Travel Expense	70.58	97.45
Motor Vehicle Operation	979.22	1,609.36
Lights and Power	675.00	415.40
Repairs and Alterations	4,730.26	3,177.47
General Expense	552.03	699.49
Equipment	570.92	6,482.29
Motor Vehicle Exchange	—	1,670.68
Stores For Resale	2,995.14	3,447.11
Employees Barracks	—	6,389.16
Totals	\$ 24,324.85	\$ 39,713.01
Morrow Mountain Dining Room:		
Salaries and Wages	\$ 1,772.02	\$ 1,444.80
Labor	758.40	332.17

MAINTENANCE FUNDS—*Continued*

	1950-51	1951-52
Supplies and Materials -----	302.77	219.72
Lights and Power -----	212.10	271.85
Repairs and Alterations -----	297.04	41.65
General Expense -----	285.23	69.70
Equipment -----	152.92	9.65
Stores for Resale -----	3,688.03	2,195.74
Totals -----	\$ 7,468.51	\$ 4,585.28

Mount Mitchell:

Salaries and Wages -----	\$ 4,208.92	\$ 4,886.63
Wages—Seasonal Employees -----	672.00	1,098.52
Labor -----	350.80	1,074.60
Supplies and Materials -----	444.34	788.41
Postage, Telephone, Telegrams and Express -----	10.00	40.00
Travel Expense -----	13.52	100.26
Motor Vehicle Operation -----	372.10	858.21
Repairs and Alterations -----	572.73	1,100.50
Equipment -----	336.13	930.94
Motor Vehicle Exchange -----	-----	518.75
Stores for Resale -----	6,382.94	12,291.84
Motor Vehicle Purchase -----	1,147.32	-----
Totals -----	\$ 14,510.80	\$ 23,688.66

Pettigrew:

Salaries and Wages -----	\$ 2,949.00	\$ 2,895.00
Labor -----	26.00	596.10
Supplies and Materials -----	219.39	301.24
Postage, Telephone, Telegrams and Express -----	9.93	24.93
Travel Expense -----	-----	10.00
Motor Vehicle Operation -----	88.34	32.39
Lights and Power -----	99.84	72.30
Repairs and Alterations -----	1,187.30	893.99
Equipment -----	80.59	579.18
Motor Vehicle Exchange -----	-----	4,672.11
Wages—Seasonal Employees -----	127.71	-----
Motor Vehicle Purchase -----	975.19	-----
Totals -----	\$ 5,763.29	\$ 10,077.24

Reedy Creek:

Salaries and Wages -----	\$ 1,446.00	\$ 3,412.00
Labor -----	-----	390.75
Supplies and Materials -----	-----	354.47
Postage, Telephone, Telegrams and Express -----	-----	25.00
Travel Expense -----	-----	8.30

MAINTENANCE FUNDS—Continued

	1950-51	1951-52
Reedy Creek, Cont.		
Motor Vehicle Operation -----	-----	297.97
Lights and Power -----	-----	5.84
Repairs and Alterations -----	-----	783.52
Equipment -----	-----	260.59
Stores for Resale -----	-----	199.49
Totals -----	\$ 1,446.00	\$ 5,737.93
Town Creek Indian Mound:		
Salaries and Wages -----	\$ -----	\$ 2,232.00
Labor -----	54.00	500.00
Supplies and Materials -----	124.33	261.66
Postage, Telephone, Telegrams and Express -----	10.00	10.00
Travel Expense -----	-----	89.96
Motor Vehicle Operation -----	118.32	23.41
Repairs and Alterations -----	283.02	497.56
Equipment -----	490.78	215.04
Totals -----	\$ 1,080.45	\$ 3,829.63
State Lakes (White and Waccamaw):		
Wages—Seasonal Employees -----	\$ 1,482.00	\$ 1,495.50
Labor -----	715.55	749.95
Supplies and Materials -----	435.50	62.78
Postage, Telephone, Telegrams and Express -----	5.00	25.00
Travel Expense -----	45.75	63.70
Motor Vehicle Operation -----	199.23	200.00
Repairs and Alterations -----	589.56	549.71
Equipment -----	981.31	525.00
Totals -----	\$ 4,453.90	\$ 3,671.64
Improvements Mount Mitchell:		
Labor -----	\$ 4,801.20	\$ 1,924.45
Supplies and Materials -----	2,735.03	2,323.05
Motor Vehicle Operation -----	2.18	99.03
Equipment -----	120.00	186.35
Postage, Telephone, Telegrams and Express -----	10.00	-----
Travel Expense -----	254.51	-----
General Expense -----	73.60	-----
Rental Equipment -----	271.25	-----
Totals -----	\$ 8,267.77	\$ 4,532.88

MAINTENANCE FUNDS—Continued

	1950-51	1951-52
Tryon Palace, Ceramics & Handicraft Project:		
Disbursements:		
Labor		\$ 128.06
Supplies and Materials		37.20
Travel Expense		1,119.93
Motor Vehicle Operation		35.54
Archaeological Survey		5,051.25
Total		\$ 6,371.98
Total Disbursements Parks	\$ 217,851.67	\$ 281,219.16
Less Receipts:		
Permits, State Lakes	\$ 3,455.00	\$ 3,775.00
Park Concessions	73,700.91	80,567.86
Morrow Mountain Dining Room Receipts ..	4,129.49	1,449.00
Transferred from Preceding Year	16,441.00	25,864.00
Rentals from Employees	2,657.79	5,127.08
Federal Admission Tax		83.26
State Sales Tax	35.81	25.05
Insurance—Fire Losses		20,050.00
Totals	\$ 100,420.00	\$ 136,941.25
Appropriation	\$ 117,431.67	\$ 144,277.91
XII. IREDELL PROPERTY:		
Disbursements:		
Purchase of Land—Appropriation		\$ 13,509.63
Appropriation		\$ 13,509.63
XIII. SECTION BASE:		
Disbursements:		
Repairs and Alterations	\$ 158.33	\$ —
Buildings and Improvements—		
Fisheries Museum	700.43	782.26
Totals	\$ 858.76	\$ 782.26
Less Receipts:		
Transferred from Preceding Year	\$ 4,721.00	\$ 3,863.00
Appropriation	\$ —3,862.24	\$ —3,080.74

MAINTENANCE FUNDS—*Continued*

	1950-51	1951-52
XIV. TRANSFERRED TO 1951-52:		
Deferred Obligations -----	\$ 90,607.00	
Reserve for Outstanding Obligations -----	134,619.00	
Tryon Palace Funds -----	35,000.00	
Appropriation -----	\$ 260,226.00	
TOTAL DISBURSEMENTS -----	\$2,140,378.66	\$2,174,611.94
LESS TOTAL RECEIPTS -----	818,519.05	987,155.93
TOTAL DISBURSEMENTS FROM APPROPRIATION -----	\$1,321,859.61	\$1,187,456.01

DEPARTMENT OF CONSERVATION AND DEVELOPMENT
DIVISION OF COMMERCIAL FISHERIES
Statement of Receipts and Disbursements
Operating Fund
Biennium 1950-1952

	1950-51	1951-52
DISBURSEMENTS:		
I. ADMINISTRATION AND INSPECTION:		
Salary—Commissioner	\$ 5,412.00	\$ 5,788.00
Salaries and Wages—Staff	43,476.11	40,316.96
Salaries and Wages—Temporary	424.84	9,077.62
Supplies and Materials	1,108.17	993.52
Postage, Telephone, Telegrams	851.62	618.99
Travel Expense	1,723.85	1,865.75
Printing and Binding	1,289.61	1,979.45
Motor Vehicle Operation	6,459.18	7,010.08
Insurance and Bonding	14.88	20.00
Other Expense	174.27	30.75
Totals	\$ 60,934.53	\$ 67,701.12
II. OPERATION PATROL BOATS:		
Salaries and Wages	\$ 33,753.20	\$ 30,294.55
Salaries and Wages—Temporary	—	335.00
Supplies and Materials	8,989.83	5,020.63
Gas and Oils	8,412.13	5,770.49
Repairs and Alterations	15,457.29	6,445.92
Subsistence	4,870.00	4,072.00
Marking Fishing Limits	598.04	454.71
Fire Insurance—Patrol Boats	194.00	780.00
Docks and Warehouses	303.35	308.04
Equipment	1,712.09	1,328.02
Repairs—Ship Radios	—	437.93
Totals	\$ 74,290.93	\$ 55,247.29
III. SHELLFISH SANITATION:		
Supplies and Materials	\$ 426.41	\$ 479.62
Equipment	489.01	371.22
Totals	\$ 915.42	\$ 850.84
IV. SECTION BASE:		
Supplies and Materials	\$ 829.33	\$ 399.63
Motor Vehicle Operation	1,689.79	1,480.95
Lights, Water, Heat	1,797.31	1,124.62
Repairs and Alterations	1,510.93	784.75
Equipment	300.00	—
Motor Vehicle Purchase	1,226.56	—
Totals	\$ 7,353.92	\$ 3,789.95

DIVISION OF COMMERCIAL FISHERIES—*Continued*

	1950-51	1951-52
V. TRANSFERRED TO 1951-52—		
Appropriation	\$ 4,220.00	
TOTAL DISBURSEMENTS	\$ 147,714.80	\$ 127,589.20
Less Receipts:		
Food Fish Licenses and Taxes	\$ 32,419.58	\$ 25,819.25
Oyster Licenses and Taxes	17,626.12	23,255.18
Clam Licenses and Taxes	4,013.44	137.50
Crab Licenses and Taxes	3,001.72	1,079.00
Menhaden Licenses	19,949.00	8,405.50
Power Boat Licenses	1,070.00	630.00
Escallop Licenses and Taxes	557.95	40.00
Other Sources	4,409.63	3,384.08
Rent from Employees	—	400.00
Transferred from 1950-51	—	4,220.00
TOTAL RECEIPTS	\$ 83,047.44	\$ 67,370.51
TOTAL DISBURSEMENTS FROM APPROPRIATION	\$ 64,667.36	\$ 60,218.69

DEPARTMENT OF CONSERVATION AND DEVELOPMENT

COMMERCIAL FISHERIES

SHELLFISH DIVISION

Statement of Receipts and Disbursements

Biennium 1950-1952

	1950-51	1951-52
REVENUE:		
Appropriation		\$ 19,822.00
Receipts:		
Transferred from Preceding Year	\$ 7,621.44	\$ 1,414.05
Totals	\$ 7,621.44	\$ 21,236.05
Less Disbursements:		
Salaries and Wages	\$ 15.00	—
Postage, Telephone, Telegrams	6.44	—
Travel Expense	280.10	—
Oyster Planting	5,905.85	6,672.84
Study Effect Dredging Oysters	—	330.04
Totals	\$ 6,207.39	\$ 7,002.88
Balance Transferred to Succeeding Year..	\$ 1,414.05	\$ 14,233.17

BUGGS ISLAND DEVELOPMENT COMMISSION

Statement of Receipts and Disbursements

Biennium 1950-1952

	1951-52
Receipts:	
County Cooperation	\$ 600.00
Cooperation State Agencies	700.00
Total	\$ 1,300.00
Less Disbursements:	
Postage, Telephone, Telegrams	\$ 6.00
Travel Expense—Commission Members	200.07
Printing and Binding	16.95
Contractual Services	24.50
Total	\$ 247.52
Balance Transferred to Succeeding Year	\$ 1,052.48

CAPE HATTERAS SEASHORE COMMISSION

Statement of Receipts and Disbursements

Biennium 1950-1952

	1950-51	1951-52
REVENUE:		
Balance Transferred from Preceding Year..\$	67,152.16	\$ 69,322.26
Appropriation—Contingency and Emergency Funds	2,500.00	200,000.00
Totals	\$ 69,652.16	\$ 269,322.26
Less Disbursements:		
Attending Meetings—Commission Members..\$	182.05	\$ 82.17
Travel Expense	147.85	-----
Transferred to Permanent Improvement Fund of 1951	-----	268,232.55
Totals	\$ 329.90	\$ 268,314.72
Balance Transferred to Succeeding Year..\$	69,322.26	\$ 1,007.54

DEPARTMENT OF CONSERVATION AND DEVELOPMENT
ATLANTIC STATES MARINE FISHERIES COMMISSION

Statement of Receipts and Disbursements

Biennium 1950-1952

	1950-51	1951-52
Appropriation:		
Contingency and Emergency Funds -----	\$ 1,400.00	\$ 1,600.00
Less Disbursements:		
Travel Expense—Commissioners -----	\$ 798.74	\$ 409.89
Payment Expenses to Commission -----	600.00	1,000.00
Totals -----	\$ 1,398.74	\$ 1,409.89
Unexpended Appropriation -----	\$ 1.26	\$ 190.11

TRYON PALACE—SPECIAL FUND

Statement of Receipts and Disbursements

Biennium 1950-1952

	1950-51	1951-52
REVENUE:		
Balance Transferred from Preceding Year--	-----	\$ 6,342.51
Rentals -----	8,622.03	9,609.54
Totals -----	\$ 8,622.03	\$ 15,952.05
Less Disbursements:		
Supplies and Materials -----	\$ 282.23	\$ 63.25
Travel Expense -----	\$ 99.04	\$ 83.90
Lights and Water -----	414.91	70.26
General Expense -----	939.37	43.44
Insurance and Bonding -----	543.97	799.95
Taxes -----	-----	—2.60
Transferred to P. I. Fund of 1947—		
Purchase of Land -----	-----	11,457.45
Totals -----	\$ 2,279.52	\$ 12,515.65
Balance Transferred to Succeeding Year--	\$ 6,342.51	\$ 3,436.40

PERMANENT IMPROVEMENT FUNDS
DEPARTMENT OF CONSERVATION AND DEVELOPMENT
PERMANENT IMPROVEMENT FUND OF 1947
STATE PARKS

Statement of Receipts and Disbursements

	To Date
REVENUE:	
Appropriation Chapter 622 Public Laws of 1947	\$ 500,000.00
Transferred from Reserve Permanent Improvement Appropriation—	
Purchase of Tryon Palace Land	\$ 150,000.00
Transferred from Year 1950-51	35,000.00
Transferred from 1949 Permanent Improvement Fund	10,000.00
Transferred from Tryon Palace—Special Fund	11,457.45
Total Tryon Palace	\$ 206,457.45
TOTAL REVENUE	\$ 706,457.45
Less Disbursements:	
CLIFFS OF NEUSE:	
Roads and Parking	\$ 16,044.94
Public Picnic Area Development	25,246.57
Maintenance Service Center	8,843.60
Total	\$ 50,135.11
CRABTREE CREEK:	
Public Picnic Grounds for White	\$ 36,898.60
Public Picnic Grounds for Colored	11,151.10
Public Camp Grounds	12,347.56
Maintenance Service Center	17,987.47
Total	\$ 78,384.73
FORT MACON:	
Public Picnic Grounds	\$ 3,834.93
Parking Areas	9,497.05
Maintenance and Service Center	14,159.47
Total	\$ 27,491.45
HANGING ROCK:	
Parking Areas	\$ 13,764.55
Completion of Recreation Lodge	1,093.84
Equipment for Recreation Lodge	66.57
Public Camp Grounds	4,734.48
Maintenance and Service Center	20,037.21
Boathouse	2,694.17
Bathhouse and Beach	3,974.75
Total	\$ 46,365.67

PERMANENT IMPROVEMENT FUNDS—Continued

	To Date
JONES LAKE:	
Boathouse	\$ 3,521.01
Public Picnic Grounds	2,855.92
Public Camp Grounds	4,198.75
Total	\$ 10,575.68
MORROW MOUNTAIN:	
Roads and Parking Areas	\$ 24,973.48
Roads and Parking Areas	7,000.00
Cabin Equipment	2,000.00
Walks and Terraces	7,938.43
Public Picnic Grounds	3,493.66
Boats	999.93
Public Camp Grounds	12,488.02
Vacation Cabins	11,999.87
Total	\$ 70,893.39
MOUNT MITCHELL:	
Maintenance and Service Center	\$ 34,961.36
Natural History Museum	9,042.16
Total	\$ 44,003.52
PETTIGREW:	
Control Gates	\$ 3,388.82
Historical Restoration	357.00
Total	\$ 3,745.82
SINGLETARY LAKE:	
Swimming Dock	\$ 8,988.39
Maintenance and Service Center	7,516.90
Total	\$ 16,505.29
TRYON PALACE:	
Purchase of Land	\$ 206,457.45
TOTAL DISBURSEMENTS	\$ 554,558.11
UNEXPENDED APPROPRIATION	\$ 151,899.34

DEPARTMENT OF CONSERVATION AND DEVELOPMENT

PERMANENT IMPROVEMENT FUND OF 1949

STATE PARKS

Statement of Receipts and Disbursements

	To Date
APPROPRIATION	\$1,074,144.00
Less Disbursements:	
CLIFFS OF NEUSE:	
Sewage Disposal System	\$ 3,680.82
Water Supply System	13,174.75
Dam, Lake and Bathhouse	1,488.71
Total	\$ 18,344.28
CRABTREE CREEK:	
Public Picnic Grounds for White	\$ 20,024.13
Bath House for White	1,225.00
Swimming Pool for White	1,750.00
Sewage Disposal System	6,011.25
Water Supply System	19,755.53
Public Picnic Grounds for Colored	16,661.65
Bathhouse for Colored	1,085.00
Swimming Pool for Colored	1,400.00
Sewage Disposal System for Colored	5,497.37
Water System for Colored	24,898.29
Roads to Recreation Areas	21,198.75
Parking Areas	5,030.24
Power Line	6,157.79
Maintenance Service Center	19,660.99
Public Camp Grounds	9,499.58
Total	\$ 159,855.57
FORT MACON:	
Enlarge Bathhouse	\$ 7,241.36
Parking Areas	5,234.62
Public Picnic Grounds	10,511.08
Restore Museum	1,591.65
Surfacing Parking Areas	413.60
Maintenance and Service Center	6,498.68
Total	\$ 31,491.59
HANGING ROCK:	
Recreation Lodge	\$ 700.00
Recreation Lodge Equipment	66.66
Parking Areas	4,125.00
Sewage Disposal	372.00
Maintenance Service Center	11,660.02

PERMANENT IMPROVEMENT FUND—Continued

	To Date
Power Line	8,739.26
Public Camp Grounds	3,553.62
Public Picnic Grounds	28,788.99
Total	\$ 58,005.55
HIWASSEE:	
Transfer to P. I. Funds of 1947,	
Purchase Tryon Palace Land	\$ 10,000.00
JONES LAKE:	
Picnic Grounds	\$ 9,220.41
Roads	197.03
Maintenance and Service Center	9,623.85
Swimming Pier	4,809.65
Water Supply System	1,400.70
Total	\$ 25,251.64
MORROW MOUNTAIN:	
Improving Roads	\$ 4,312.00
Sewage Disposal System	5,222.12
Water Supply System	2,175.96
Power Line	4,180.61
Parking Areas	1,728.90
Maintenance and Service Center	23,641.20
Public Picnic Grounds	17,466.69
Total	\$ 58,727.48
MOUNT MITCHELL:	
Tourist Inn	\$ 4,410.00
Sewage Disposal System	7,715.76
Water Supply System	8,959.48
Parking Areas	7,933.11
Community Building	1,962.82
Total	\$ 30,981.17
PETTIGREW:	
Purchase of Land	\$ 6,255.25
TOWN CREEK INDIAN MOUND:	
Excavation and Research	\$ 8,591.72
Purchase of Land	5,700.00
Archaeological Restoration	10,798.47
Total	\$ 25,090.19
TOTAL DISBURSEMENTS	\$ 424,002.72
UNEXPENDED APPROPRIATION	\$ 650,141.28

DEPARTMENT OF CONSERVATION AND DEVELOPMENT
DIVISION OF COMMERCIAL FISHERIES
PERMANENT IMPROVEMENT FUND OF 1949
Statement of Receipts and Disbursements

	To Date
REVENUE:	
Receipts:	
Sale of Boat Pamlico	\$ 31,000.00
Appropriation	50,000.00
Total	\$ 81,000.00
Less Disbursements:	
Patrol Boat—Pamlico	\$ 49,990.73
Equipment	14,330.71
Cost of Sale—Pamlico	538.36
Total	\$ 64,859.80
Unexpended Balance	\$ 16,140.20

DEPARTMENT OF CONSERVATION AND DEVELOPMENT
N. C. CAPE HATTERAS SEASHORE COMMISSION
PERMANENT IMPROVEMENT FUND OF 1951
Statement of Receipts and Disbursements

	To Date
REVENUE:	
Transferred from Cape Hatteras Seashore Commission Code 612...	\$ 268,232.55
Less Disbursements	None
Unexpended Balance	\$ 268,232.55

DEPARTMENT PERSONNEL

as of June 30, 1952

PINCKNEY M. BERNSTEIN, *Personnel Officer*

ADMINISTRATION

George R. Ross	Director
Grace V. Lane	Administrative Assistant
Mrs. John C. Bagley	Accounting Clerk II
Pinckney M. Bernstein	Personnel Officer
W. Ray Bishop	Auditor
Rachel C. Fleenor	Accounting Clerk I
Helen C. Gournas	Typist Clerk II
Betty B. Hodge	Stock Clerk I
Eula Lincoln	Accounting Clerk III
Harold McClain	Janitor Messenger
Lonnie Poole	Duplicating Machine Operator
Annie M. Ragland	Clerk I
Carrie Lee Walters	Secretary
Nell Wellons	Typist Clerk II

DIVISION OF COMMERCE & INDUSTRY

Paul Kelly	Industrial Development Administrator
Alice E. Alderman	Stenographer Clerk II
Mary E. Clement	Stenographer Clerk III
H. P. Cotton	Industrial Devel. Representative III
Milton M. Croom (On Military Leave)	Industrial Representative II
Sarah K. Fort	Stenographer Clerk II
William C. Guthrie	Industrial Devel. Representative III
Walter W. Harper	Industrial Devel. Representative II
Renno J. Hawkins	Research Analyst I
Louise M. Ragland	Stenographer Clerk II
Philip Schwartz	Industrial Devel. Representative II
Marion J. Shuffler	Industrial Devel. Representative II
Ella J. Spencer	Stenographer Clerk II
Walter G. Wells, Jr.	Mineral Resources Devel. Engr.

DIVISION OF COMMERCIAL FISHERIES

Headquarters, Morehead City

C. D. Kirkpatrick	Commissioner
E. W. Clemmons	Inspector
L. M. Davis	Inspector
Nolie G. Fulcher	Inspector
L. W. Hassell	Inspector
F. E. Hopkins	Inspector
Murel E. Jones	Inspector
Willis C. Mobley	Inspector
Charles G. Nelson	Inspector

Ernest Nelson	<i>Law Enforcement Supervisor</i>
E. L. Nicholson	<i>Law Enforcement Supervisor</i>
Jack Phillips	<i>Inspector</i>
T. M. Popperville	<i>Inspector</i>
Roma G. Salter	<i>Inspector</i>
Walter H. Stowe	<i>Inspector</i>
Carl P. White	<i>Inspector</i>
R. Clifton Wilson	<i>Inspector</i>
U. G. Wise	<i>Inspector</i>
Cecil W. Phelps	<i>Building Custodian</i>
Norman R. Webb	<i>Accounting Clerk III</i>
Rachel Willis	<i>Stenographer Clerk II</i>
T. A. Basnight	<i>Patrol Boat Captain I</i>
Roy Brown	<i>Patrol Boat Captain II</i>
Charles M. Brooks	<i>Patrol Boat Crewman</i>
Charles W. Chadwick	<i>Patrol Boat Crewman</i>
Stanley B. Golden	<i>Patrol Boat Captain I</i>
C. W. Hayman	<i>Patrol Boat Captain I</i>
C. L. Sawyer	<i>Patrol Boat Captain I</i>
William E. Shaw	<i>Patrol Boat Crewman</i>
John W. Ward	<i>Patrol Boat Crewman</i>
David O. Williams	<i>Patrol Boat Crewman</i>

DIVISION OF FORESTRY

CENTRAL OFFICE:

F. H. Claridge	<i>State Forester</i>
Paul W. Tillman	<i>Assistant State Forester in Charge of Fire Control</i>
P. A. Griffiths	<i>Assistant State Forester in Charge of Nurseries and Management</i>
M. M. Carstarphen	<i>Law Enforcement Officer</i>
W. J. Clark	<i>Assistant Forester</i>
J. B. Hubbard	<i>Protection Forester</i>
L. E. Hicks	<i>Management Forester</i>
D. J. Martz (On Military Leave)	<i>Management Forester</i>
R. L. Scheer	<i>Assistant Forester—Reforestation</i>
Bernard E. Sanford	<i>Radio Communications Engineer</i>
Alicegrae Ferrell	<i>Accounting Clerk II</i>
Margaret H. Mahler	<i>Stenographer Clerk I</i>
Grace Prevost	<i>Accounting Clerk III</i>
Mildred Sadler	<i>Accounting Clerk I</i>
Mabel Young	<i>Stenographer Clerk II</i>

DISTRICT PERSONNEL:

District 1—Asheville

B. H. Corpening	<i>District Forester</i>
William R. Kiser	<i>Assistant District Forester</i>
Henry S. Plotkin	<i>Farm Forester</i>
T. E. Begley	<i>District Ranger</i>
D. E. Whitley	<i>Radio Technician</i>
Ruth W. Holt	<i>Stenographer Clerk II</i>
J. Paul Holland	<i>Buncombe County Ranger</i>
A. C. Peek	<i>Asst. Buncombe County Ranger</i>
Jim E. Rhodes	<i>Henderson County Ranger</i>

J. Moody Chandler	Madison County Ranger
M. U. Marlowe	McDowell County Ranger
Frank H. Bryant	Mitchell County Ranger
O. C. Feagan	Polk County Ranger
Carvos E. Parton	Rutherford County Ranger
J. Craig English	Yancey County Ranger
Harvey C. Barron	Forest Protection Towerman

District 2—Lenoir

F. H. Ledbetter	District Forester
A. D. Williams	District Ranger
A. H. Maxwell	Farm Forester
E. P. Simmons	District Ranger
Mary P. Clark	Stenographer Clerk II
George Royal	Alleghany County Ranger
William G. Lackey	Alexander County Ranger
James M. Stump	Ashe County Ranger
J. M. Vance	Avery County Ranger
S. B. Conley	Burke County Ranger
Lee G. Steele	Caldwell County Ranger
R. E. Cromer	Stokes County Ranger
Ray E. Norman	Surry County Ranger
A. R. Foster	Wilkes County Ranger
Granville Hawkins	Elk Creek Association Ranger

District 3—Rockingham

James A. Pippin	District Forester
R. F. Penland	Assistant District Forester
N. T. Faulkner	District Ranger
E. W. Davis	District Ranger
W. G. McCrimmon	Tractor Operator
Silas A. Dowdell	Farm Forester
Dorothy T. Sanford	Stenographer Clerk II
M. C. Mizelle	Naval Stores Technician
Lamar Ratliff	Anson County Ranger
A. B. Clark	Chatham County Ranger
A. C. Farrell	Lee County Ranger
G. W. Alexander	Montgomery County Ranger
Rober Freeman	Richmond County Ranger
A. R. McMillan	Scotland County Ranger
Earl R. Fulkerson	Forest Protection Towerman
V. E. McCrimmon	Forest Protection Towerman

District 4—New Bern

R. C. Winkworth	District Forester
D. R. Varner	Assistant District Forester
Sam Moore	Farm Forester
H. A. Adams	Radio Technician
E. C. Ferebee	District Ranger
L. W. Davis	District Ranger
Carolyn Davis	Stenographer Clerk II
J. W. Raines	Mechanic
W. A. Woolard	Beaufort County Ranger
Thurman W. Bonner	Beaufort County Asst. Ranger

Edmund M. Foreman	Carteret County Ranger
S. B. Norris	Craven County Ranger
J. Carson Joyner	Greene County Ranger
A. G. Berry	Hyde County Ranger
H. L. Clayton	Hyde County Asst. Ranger
B. E. McDaniel	Jones County Ranger
I. E. Brown	Lenoir County Ranger
W. B. Flanner, Jr.	Onslow County Ranger
J. T. Wharton	Pamlico County Ranger
N. S. Tyson	Pitt County Ranger
E. J. Antinori	Sandy Run Ass'n. Ranger
Milan O. La Roque	State College Ass'n. Ranger
Kelly Morton	Field Mechanic
Robert Kinsey	Field Mechanic
Marvin Ormond	Field Mechanic

District 5—Rocky Mount

H. L. Terry	District Forester
Seba M. Wooten	District Ranger
V. G. Watkins	Farm Forester
Arthur Millers	Farm Forester
Frances A. Johnson	Stenographer Clerk II
L. A. Pittman	Equipment Operator
T. E. House	Equipment Operator
J. C. Horton	Durham County Ranger
C. D. Fisher	Edgecombe County Ranger
J. A. Pearce	Franklin County Ranger
D. C. Critcher	Granville County Ranger
M. M. Lawrence	Halifax County Ranger
M. A. Jones	Nash County Ranger
H. C. Bottoms	Northampton County Ranger
W. R. Fitzgerald	Orange County Ranger
R. C. Daniel	Vance County Ranger
W. R. Broadwell	Wake County Forester
George E. Tilley	Wake County Asst. Ranger
E. H. Pinnell	Warren County Ranger
Joddie Burgess	Forest Protection Towerman

District 6—Fayetteville

O. C. Goodwin	District Forester
F. N. Craven	Assistant District Forester
T. R. McMillan	District Ranger
D. L. Brenneman	Farm Forester
Anna Campbell	Stenographer Clerk II
R. B. Hendrix	Field Mechanic
Everette L. Norris	Field Mechanic
P. P. Smith	Cumberland County Ranger
J. Ellis Byrd	Harnett County Ranger
C. F. McBryde	Hoke County Ranger
H. J. Whitley	Johnston County Ranger
Braddie Pait	Robeson County Ranger
William E. Herring	Sampson County Ranger
J. U. Thompson	Wayne County Ranger
R. Bruce Culbreth	Forest Protection Towerman

District 7—Elizabeth City

Oscar T. Wynne	District Forester
John F. Davis	Assistant District Forester
T. F. Lowry	District Ranger
W. R. Gregory	District Ranger
Elizabeth Harrell	Stenographer Clerk II
James M. Castelloe	Field Mechanic
R. L. Davenport	Field Mechanic
Hersey Smithson	Field Mechanic
Joe R. Williams	Field Mechanic
Graham C. Harris	Pasquotank County Ranger
Miles J. White	Bertie County Ranger
Montelle B. Williams	Camden County Ranger
Frank V. White	Chowan County Ranger
Harry L. Langston	Gates County Ranger
John R. Jordan	Hertford County Ranger
M. H. Leggett	Martin County Ranger
J. W. Nowell	Perquimans County Ranger
J. E. Swain	Tyrrell County Ranger
S. F. Darden	Washington County Ranger
Frank Hemilright	Dare County Ranger

District 8—Whiteville

Joe Herlevich	District Forester
Horace J. Green	Assistant District Forester
Thomas S. Rhyne, Jr.	Farm Forester
D. L. McQueen	District Ranger
G. R. Melville	District Ranger
Sarah G. Wayne	Stenographer Clerk II
Kimbel Best	Equipment Operator
John A. Byrd	Equipment Operator
Guy M. Long	Equipment Operator
L. H. Sheffield	Equipment Operator
Frank B. Sholar	Equipment Operator
M. H. McQueen	Bladen County Ranger
D. L. Mercer	Brunswick County Ranger
L. L. Edwards	Brunswick Asst. County Ranger
G. T. Reid	Orton Ass'n. Ranger
B. Frank Batten	Columbus County Ranger
W. H. King	Riegel Ass'n. Ranger
A. O. Squires	Waccamaw Ass'n. Ranger
Ralph Miller	Duplin County Ranger
Joe Johnson	Pender County Ranger
S. J. McKoy	Holly Shelter Ass'n. Ranger
Kenneth D. Johnson	Southern Brunswick Ass'n. Ranger
James V. Casteen	Forest Protection Towerman
James Milligan	Forest Protection Towerman
Odell Raynor	Forest Protection Towerman

District 9—Sylva

Charles C. Pettit	District Forester
J. B. Bernard	Farm Forester
Mack Ashe	District Ranger
Carolyn L. Buchanan	Stenographer Clerk II

E. S. Burnett	<i>Cherokee County Ranger</i>
Ray H. Chambers	<i>Clay County Ranger</i>
R. E. Caldwell	<i>Haywood County Ranger</i>
Charles Evans	<i>Jackson County Ranger</i>
J. Fred Bryson	<i>Macon County Ranger</i>
D. J. Dean	<i>Swain County Ranger</i>
Frank D. Whitmire	<i>Transylvania County Ranger</i>
Wayne A. Ayres	<i>Graham County Ranger</i>

District 10—Lexington

G. V. Durham	<i>District Forester</i>
Wesley Currence	<i>Farm Forester</i>
Lois M. V. Tysinger	<i>Stenographer Clerk II</i>
Fred Moehler	<i>Cabarrus County Forester</i>
James I. Ledbetter	<i>Catawba County Forester</i>
John F. Spivey	<i>Guilford and Alamance County Forester</i>
Martin M. Shaw, Jr.	<i>Iredell and Rowan County Forester</i>
George Blanchard	<i>Randolph County Forester</i>
Joe S. Hinshaw	<i>Davidson and Forsyth County Forester</i>
Henry G. Harris, Jr.	<i>Gaston County Forester</i>

Bladen Lakes State Forest—Elizabethtown

Graham V. Chamblee	<i>Forest Supervisor</i>
Nash Tatum	<i>Woods Foreman</i>
Peggy Gillespie	<i>Stenographer Clerk II</i>

Clayton State Forest Nursery—Clayton

Frank J. Miller	<i>Nursery Superintendent</i>
Moody Clemmons	<i>Nursery Foreman</i>
Harry Clemmons	<i>Assistant Nursery Foreman</i>

J. A. Holmes State Forest Nursery—Penrose

W. A. Bland	<i>Nursery Superintendent</i>
Homer Orr	<i>Nursery Foreman</i>

DIVISION OF MINERAL RESOURCES

Dr. J. L. Stuckey	<i>State Geologist</i>
Sam D. Broadhurst, Jr.	<i>Geologist II</i>
Richard J. Council	<i>Geologist II</i>
Erma B. Lanning	<i>Stenographer Clerk II</i>
Philip N. Sales	<i>Chemist III</i>

DIVISION OF STATE ADVERTISING

Charles J. Parker	<i>Director State Advertising</i>
A. Evelyn Covington	<i>Administrative Assistant</i>
Jane L. Freeman	<i>Tourist Representative I</i>
Mary L. Hatley	<i>Typist Clerk II</i>
John G. Hemmer	<i>Photographer II</i>
Charles Leonard	<i>Janitor Messenger</i>
Joyce L. Poole	<i>Stenographer Clerk I</i>
Sebastian C. Sommer (On Military Leave)	<i>Photographer I</i>
Thomas H. Walker	<i>Public Information Officer III</i>
Mary E. Young	<i>Stenographer Clerk II</i>

DIVISION OF STATE PARKS

Thomas W. Morse	<i>Superintendent State Parks</i>
William W. McIntyre, Jr.	<i>Park Superintendent II</i>
Bert A. Heidelbach, Jr.	<i>Landscape Architect III</i>
Evelyn Sanders	<i>Stenographer Clerk III</i>
Katherine S. Davis	<i>Stenographer Clerk I</i>
Patsy L. Davis	<i>Accounting Clerk I</i>
Clarence M. Steppe	<i>Civil Engineer III</i>
George E. Wiles	<i>Accounting Clerk IV</i>
Robert E. Wooten	<i>Civil Engineer III</i>
Joseph L. Boles	<i>Park Ranger II</i>
Thomas F. Davenport	<i>Park Ranger II</i>
James F. Ellis	<i>Park Ranger II</i>
Thomas C. Ellis	<i>Park Superintendent I</i>
Hubert Fitts	<i>Park Superintendent I</i>
Carl R. Flinchum	<i>Park Ranger II</i>
John D. Hill	<i>Park Ranger II</i>
Russell W. Kornegay	<i>Park Superintendent I</i>
Roy H. Ledford	<i>Park Superintendent II</i>
Ernest Lewis	<i>Park Ranger II</i>
John B. Loftin	<i>Park Ranger I</i>
Charles J. Mills	<i>Park Ranger I</i>
Vernie B. Murphy	<i>Park Ranger II</i>
Guss Patterson	<i>Park Attendant</i>
Bill Raper	<i>Park Ranger I</i>
Raymond M. Sisk	<i>Park Superintendent II</i>
Vance G. Smith	<i>Park Ranger I</i>
James R. Speer	<i>Park Ranger I</i>
Emory C. Suit	<i>Park Superintendent I</i>
George H. Sutton	<i>Park Superintendent II</i>
Walter D. Starr	<i>Park Superintendent I</i>
Isaac W. Stephens	<i>Park Attendant</i>
William S. Tarlton	<i>Researcher</i>
Rose M. Williamson	<i>Typist Clerk I</i>
John R. Wilson	<i>Park Superintendent I</i>
Charles C. Wood	<i>Water Plant Operator</i>

DIVISION OF WATER RESOURCES

W. H. Riley	<i>Hydrologic Engineer</i>
Katy M. Bennett	<i>Typist Clerk II</i>
F. E. Day	<i>Civil Engineer II</i>
Charles B. Pickering	<i>Chemist I</i>
C. M. Abbitt	<i>Observer</i>
Daniel V. Dry	<i>Observer</i>
Mrs. E. T. Rogers	<i>Observer</i>
Max Saunders	<i>Observer</i>





